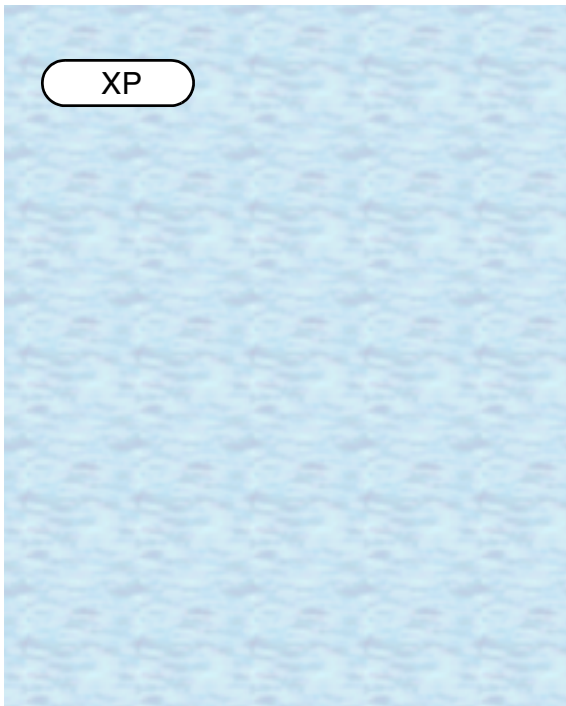


Panasonic®

Personal Computer Reference Manual

Model No. **CF-T2 Series**



We recommend that this Reference Manual be printed.

- Some of the illustrations in this manual may differ slightly in shape from the actual items in order to make the explanation easier to understand.
- If the user has logged on without the administrator authority, some functions may not be executable, and some screens may not be displayed as shown in this manual. If this happens, log on with the administrator authority to enable these functions.
- Confirm the latest information on optional products in catalogs, etc.

Illustrations and Terminology in this Reference Manual

NOTE	NOTE provides a useful fact or helpful information.
CAUTION	CAUTION indicates a condition that may result in minor or moderate injury.
<u>Enter</u>	This illustration means to press the [Enter] key.
<u>Fn+F5</u>	This illustration means to press and hold the [Fn] key, then press the [F5] key. When using with the [Fn] and [Ctrl] functions interchanged, read with [Fn] and [Ctrl] reversed.
[start] - [Run]	This illustration means to click [start], then to click [Run]. For some applications, you may need to double-click.
→ or ⇒	These symbols indicated related pages. → : Refer to the page in this Reference Manual ⇒ : Refer to the Operating Instructions
Orange ^{*1}	If ^{*1} is selected, it will jump to a related explanatory note.

About Display Mode

Internal LCD (Notebook)	This computer's display
External Display (PC monitor)	External display connected to this computer
Simultaneous display (Intel(R) Dual Display Clone)	To display the same screen on both the LCD and external display
Extended Desktop	To use both the internal LCD and the external display as an extended display domain. You can drag a window between the internal LCD and the external display each other.

The terminology in () is the one used in [Intel(R) 82852/82855 GM/GME Graphics Controller properties].

To display [Intel(R) 82852/82855 GM/GME Graphics Controller properties]:

Select [start] - [Control Panel] - [Other Control Panel Options] - [Intel(R) Extreme Graphics].


Key Combinations

CAUTION




- Do not press the following key combinations repeatedly in (quick) succession. Also, do not press different key combinations quickly one after another.
- Do not press the following key combinations while using the touch pad (external mouse), touchscreen or other keys.



NOTE

- Do not press the following key combinations until you log on to Windows and the hard disk drive indicator turns off. Note, however, that the key combinations **Fn+F1**, **Fn+F2** and **Fn+F3** are operable in the Setup Utility.
- The key combinations below may not work while some applications are running. Besides, the popup window may not be displayed depending on the state of the application you are using (e.g., when [Command Prompt] is set to "Full Screen").
- When using with the **Fn** and **Ctrl** functions interchanged. (→ [page 82](#))
 - Press **Ctrl** instead of **Fn**.
 - It is not possible to replace the markings on the keys, or the keys themselves.

Key	Functions	Popup Window (Displayed after logging on to Windows)
Fn+F1	LCD brightness control (down)	
Fn+F2	LCD brightness control (up) Pressing this key combination adjusts the brightness of LCD. The brightness setting is stored in memory separately under the condition the AC adaptor is connected and under the condition the AC adaptor is not connected.	

Key	Functions	Popup Window (Displayed after logging on to Windows)
<u>Fn+F3</u>	<p>Display change (When the external display is connected) By pressing this key combination, you can select either an external display, internal LCD or simultaneous. (→ page 61)</p> <p>CAUTION</p> <hr/> <ul style="list-style-type: none">● Do not press another key until the display destination has been completely switched.● Do not press this key combination in the following conditions.<ul style="list-style-type: none">• While MPEG files are playing.• When the Extended Desktop is being utilized.• When a game such as pinball is displayed. <p>NOTE</p> <hr/> <ul style="list-style-type: none">● This key combination does not work when [Command Prompt] is set to "Full Screen".● When switching to a different user with the Fast User Switching function, this key operation may not work. In this case, log off all users and restart the computer. <hr/>	—

Key	Functions	Popup Window (Displayed after logging on to Windows)
<u>Fn+F4</u>	<p>Speaker on/off switch Pressing this key combination turns on/off audio from the internal speaker and headphone jack.</p> <p>NOTE</p> <ul style="list-style-type: none"> Disabling the speakers will also disable the warning beep. Speakers connected to the USB port cannot be muted. 	 OFF (MUTE)  ON
<u>Fn+F5</u> <u>Fn+F6</u>	<p>Volume control (down)</p> <p>Volume control (up) Pressing this key combination adjusts the volume of the internal speaker and headphone jack.</p> <p>NOTE</p> <ul style="list-style-type: none"> This key combination cannot be used to adjust the volume of the warning beep or speakers connected to the USB port. 	
<u>Fn+F7</u>	<p>Shut down using the standby function Pressing this key combination causes the current status of the computer to be saved to memory, and shuts down the computer. (→ page 23)</p>	—

Key	Functions	Popup Window (Displayed after logging on to Windows)
<u>Fn+F9</u>	Remaining capacity of the battery pack	 <p>When the battery pack is inserted in the computer (example)</p>  <p>When the battery pack is not inserted in the computer</p>
<u>Fn+F10</u>	Shut down using the hibernation function Pressing this key combination causes the current status of the computer to be saved to the hard disk, and shuts down the computer. (→ page 23)	—
<u>Fn+NumLk</u> <u>Fn+Home</u>	The functions differ depending on the application software being used.	—

Hotkey Settings

There are two Fn key functions as follows:

- Fn key lock function
After **Fn** is pressed once, it stays in the "pressed" position until another key is pressed. This is convenient when it is difficult to press two buttons simultaneously.
- Popup windows display ON/OFF

NOTE

- The Hotkey settings can be set separately for each user.
- When using with the **Fn** and **Ctrl** functions interchanged (→ page 82), read with **Fn** and **Ctrl** reversed.

1 Run the Hotkey Settings.

Select [start] - [All Programs] - [Panasonic] - [Hotkey Settings].

2 Set the parameters.

A. Use Fn key lock

Add the check mark if you want to enable the Fn key lock function. The following Fn key lock function will then be enabled.

- To use **Fn** only once:

- ① Press **Fn** once. (Locked)
- ② Press another key for combination. (Lock released)

- To use **Fn** successively:

- ① Press **Fn** twice. (Locked)
- ② Press another key for combination.

Fn key remains locked until **Fn** is pressed once more.

B. Notification


This setting is only available when [Use Fn key lock] is checked.


[Make sounds when Fn key is pressed]⁺¹

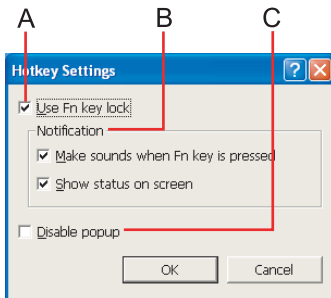
Notifies the user with a sound when **Fn** is locked or released.

[Show status on screen]:

Displays the Fn key status on the taskbar.

: **Fn** is locked

: **Fn** is not locked



C. Disable popup

Add the check mark if you want to turn the popup window display function OFF. "Full Screen" of [Command Prompt] or MPEG files may change to a window display if **Fn+Fx**^{*2} keys are pressed. To prevent this, turn the popup window display function OFF.





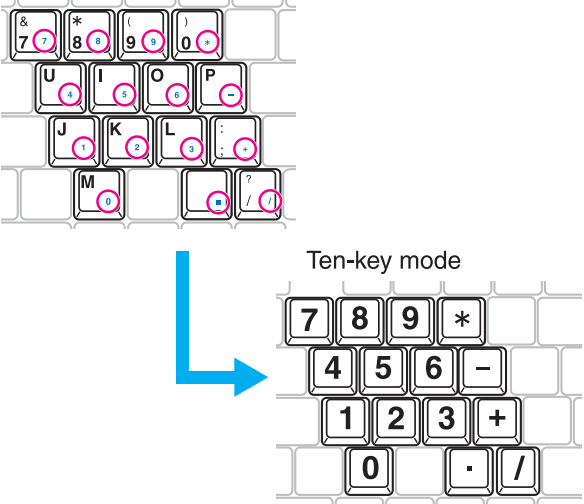
3 Select [OK].

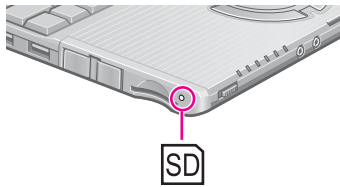
*1 If MUTE is set, you will not hear a beep.




*2 "**Fx**" indicates any function key from **F1** to **F10**.

LED Indicators

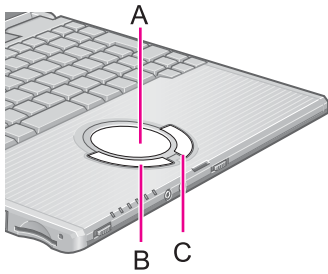


	<p>Power status</p>	<ul style="list-style-type: none"> ● Not lit Power off / Hibernation mode ● Green Power on ● Blinking green Standby mode
	<p>Battery pack status</p>	<p>→ page 37</p>
	<p>Caps Lock</p>	<p>This indicator lights green when Caps Lock is pressed. Subsequent non-shifted input is capitalized.</p>
	<p>NumLk (Numeric key)</p>	<p>This indicator lights green when NumLk is pressed. When the green light is on, if Fn is pressed along with keys on certain other segments of the keyboard, then those keys will operate as numeric keys. The [Enter] key functions differently depending on the application.</p> 



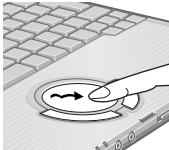
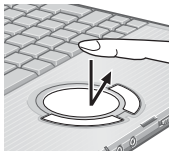




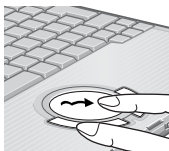
	ScrLk (Scroll lock)	This indicator lights green when Fn+ScrLk are pressed. Scroll lock functions differently depending on the application.
	Hard disk drive status	This indicator lights when the hard disk drive is accessed.
	SD memory card status	This indicator lights when the SD memory card or MultiMedia card is accessed.

Touch Pad



Use the touch pad to move the cursor on the screen and perform computer operations.

- A. Work Surface (touch pad)
- B. Left Button
- C. Right Button

Function	Operation	
Moving the Cursor	 <p>Move the tip of your finger lightly over the work surface.</p>	
Tapping/Clicking	 <p>tapping</p>	<p>or</p>  <p>clicking</p>
Double-Tapping/Double-Clicking	 <p>double-tapping</p>	<p>or</p>  <p>double-clicking</p>
Dragging	  <p>Two quick taps, but on the second tap leaving your finger down (applying pressure) and moving it on the work surface. or While holding down the button, moving your finger on the work surface.</p>	
Scroll	Trace a circle around the touch pad. (→ page 13)	

NOTE

- Refer to [Mouse Properties] for information on basic operations other than the above. To display [Mouse Properties]:
Select [start] - [Control Panel] - [Printers and Other Hardware] - [Mouse].
- Sensitivity when touching the touch pad can be adjusted. (→ page 16)
- When an external mouse is connected and the cursor does not operate properly:
In the [Main] menu of the Setup Utility, set [Touch Pad] to [Disable]. When you want to use the touch pad again, return the setting to [Enable]. (→ page 82)

Using the Touch Pad Utility


The Touch Pad utility enables you to scroll easily by tracing a circle around the touch pad.

NOTE

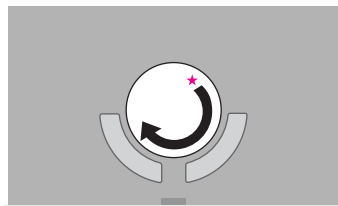
- Depending on the application software, the scroll operation may differ, or the scroll function may not operate properly.
- When the external mouse driver is installed, the scroll function may not operate properly.

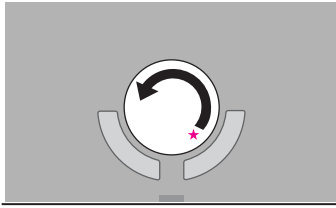
How to Scroll

- 1 Select the screen you want to scroll.
- 2 Position the cursor over the area you want to scroll.
- 3 Trace a circle around the edge of the touch pad as indicated in the diagrams.

When you touch the scroll startup area on the touch pad, the icon on the taskbar will change to .

To scroll down (trace clockwise)





To scroll up (trace counter-clockwise)

Scrolling will begin more easily if you start from the position marked by the ★ and trace as indicated by the arrow.

- On screens that cannot be scrolled (e.g., desktop screen), if you use the touch pad as described in Step 3 (→ page 13), the computer may try to scroll the screen, causing the cursor to freeze. If this happens, remove your finger from the touch pad and begin again, this time starting from the center of the touch pad.
- 4 Once scrolling has begun, continue to trace a circle on the touch pad without removing your finger from the pad.
 - As long as you are tracing a circle, you can continue scrolling using any position on the touch pad. It is not necessary to trace a circle around the edge of the pad.
 - To scroll in the opposite direction, trace a circle in the opposite direction without removing your finger from the touch pad.
 - 5 When you finish scrolling, remove your finger from the touch pad.




Hints for Easier Touch Pad Operation

- You can change various touch pad settings using the following procedure:
[start] - [All Programs] - [Panasonic] - [Touch Pad utility settings]
Settings can be changed for the following functions:
 - Use Touch Pad function (On/Off)
 - Display icon in task tray (On/Off)
 - Animated icon in task tray (On/Off)
 - Rotate icon when wheel is operated (On/Off)
 - Scroll item under mouse cursor (On/Off)
 - Scroll speed setting
 - Set initial scroll scope

Using the Virtual Scrolling Function


NOTE

- Because the Touch Pad utility and the Virtual Scrolling function both offer scrolling functions that use the touch pad, these two features cannot be used simultaneously. If you try to use them at the same time, a message may be displayed asking you if you want to enable the Touch Pad utility.
 - To use the Touch Pad utility:
Select [Yes]. The Virtual Scrolling function will be disabled.
 - To use the Virtual Scrolling function:
Select [No], and then remove the Touch Pad utility and set the Virtual Scrolling function using the following procedure. In this case, the Touch Pad utility will be disabled.
-

- 1** Log on with the administrator authority.
Do not use the Fast User Switching function.
- 2** Select  on the taskbar with the right button, and select [Exit].
If  is not displayed on the taskbar:
In [start] - [All Programs] - [Panasonic] - [Touch Pad utility settings] - [General settings], add a check mark for [Display icon in task tray] and select [OK].
- 3** In [start] - [Control Panel] - [Add or Remove Programs], select [TouchPadUtility], then select [Change/Remove].
- 4** At the confirmation message, select [OK], then select [Finish].
- 5** Select  at [Add or Remove Programs].
- 6** Select [start] - [Control Panel] - [Printers and Other Hardware] - [Mouse] - [Device Settings].
- 7** Select the device name in [Devices] (e.g., Synaptics TouchPad), then select [Settings].

- 8 Select [Virtual Scrolling], add a check mark for the scroll functions you want to use, then select [OK].
- 9 Select [OK] at [Mouse Properties].

NOTE

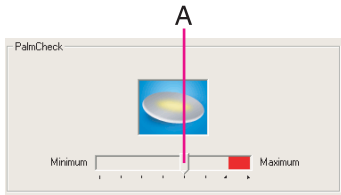
- To begin using the Touch Pad utility again:
 - ① Log on with the administrator authority.
 - ② Run the setup program.
Select [start] - [Run], input [c:\util\touchpad\setup.exe], then select [OK].
 - ③ Select [Next] at the welcome message.
 - ④ Select [Finish].
- At the confirmation message asking if you want to enable the Touch Pad utility, select [Yes].
- When the setup is complete,  will be displayed on the taskbar.

Adjusting the Sensitivity when Touching the Touch Pad

When operating the keyboard, if your hand touches the touch pad unintentionally causing the cursor to move, adjust the sensitivity using "PalmCheck™." When operating the touch pad, if your finger touches the touch pad unintentionally causing the cursor to move, or if the cursor does not move even when you move your finger above the touch pad, adjust the sensitivity using the "Touch sensitivity" setting.

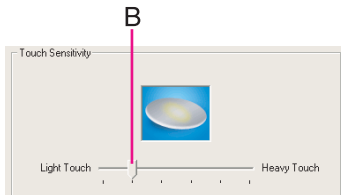
Adjust these two sensitivity settings until you find the setting that is easiest to use. Adjust [PalmCheck™] and [Touch Sensitivity] using the following procedure:

- 1 Select [start] - [Control Panel] - [Printers and Other Hardware] - [Mouse] - [Device Settings].
- 2 Select the device name in [Devices] (e.g. Synaptics TouchPad), then select [Settings].
- 3 Select [Sensitivity], then select [PalmCheck™] or [Touch Sensitivity]. After making the adjustment, select [OK].



■ PalmCheck™

- By dragging slide bar (A) to the [Maximum] position, you can prevent the cursor from moving unintentionally.
- By dragging slide bar (A) to the [Minimum] position, you can enable the cursor to move even with a light touch of the palm on the touch pad.



■ Touch Sensitivity

- When slide bar (B) is dragged to the [Heavy Touch] position, the cursor will only move with a strong touch on the touch pad.
- When slide bar (B) is dragged to the [Light Touch] position, the cursor will move even with a light touch on the touch pad.

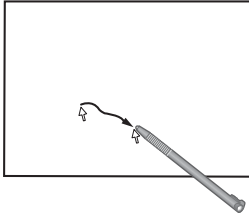
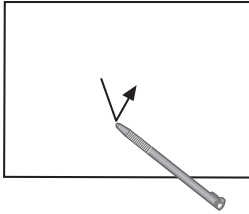
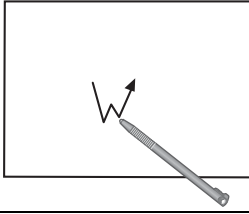
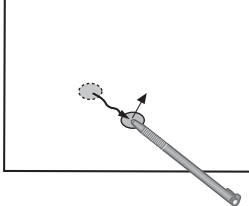
NOTE

- Click on [Defaults] to return the settings to their original positions at the time of purchase.

Handling the Touch Pad

- By design the touch pad is to be used with a finger tip only. Do not place any object on the work surface or press down forcefully with sharp-pointed objects (e.g., nails) or hard objects that can leave marks (e.g., pencils and ball point pens).
- Try to avoid having any harmful substances such as oil, come in contact with the touch pad. The cursor may not work properly in such cases.
- **When the touch pad becomes dirty:**
Wipe to remove dirt by using a dry soft cloth such as gauze or a soft cloth first applied with detergent diluted with water and then thoroughly wrung.
Do not use benzene or thinner, or rubbing alcohol. Doing so may adversely affect the surface, e.g., discoloration. In addition, do not use commercially-available household cleaners and cosmetics, as they may contain components harmful to the surface.

Your computer is equipped with a touchscreen function allowing you to perform the same operations as the touch pad or mouse by touching the surface of the display with the stylus (included). The following explanation gives one example (for the default settings). The operation settings can be changed. (→ [page 21](#))

Functions	Operation
Moving the cursor	 <p>The cursor is moved to the location pointed by the stylus.</p>
Clicking (Tapping)	 <p>One tap</p>
Double-clicking (Double-tapping)	 <p>Two quick taps</p>
Dragging	 <p>Touch and hold the object (i.e. file or icon), move the stylus on the surface (dragging the object to the desired location), then release the stylus.</p>

■ To right-click:

- Use **L** on taskbar.
 - ① Select **L** on the taskbar.
 - L** changes to **R**.
 - ② Select the object you want to right-click.
 - R** changes to **L**.
 - If you make a mistake and select **R**, select **R** to return to **L**.
- Use button selector.
 - ① Right-click on **L** on the taskbar, and select [Button selector].



The screen on the left will be displayed. Operation method is the same as **L** on the taskbar (see above).

- If you want to keep this screen visible at all times, select (A), and select to add a check mark for [Always on top].




CAUTION

- When the internal LCD is used alone or with an external display simultaneously, the touchscreen function cannot be used when the area of either display is set larger than default setting of the display resolution.
- If a change is made to the display resolution, or the cursor can not be pointed correctly with the stylus, be sure to perform [Calibration]. (→ page 21)
- When mouse drivers are installed (e.g., Intellimouse), the touchscreen function may not be used.
- When the operation of panning (only the internal LCD) is performed while the display resolution is set higher than the resolution of the internal LCD, the touchscreen function will not work properly.
- Even when only an external display is in use, the cursor will move on the external display if the surface of the internal LCD is touched when the touchscreen driver is active. Therefore, do not touch the internal LCD when only an external display is in use.
- The touchscreen function can not be used when using the “Full Screen” in [Command Prompt].
- Do not select [Left-handed] in [start] - [Control Panel] - [Printers and Other Hardware] - [Mouse] - [Buttons] - [Devices] - [Other Pointing Devices]. If [Left-handed] is

selected, the operation when the touchscreen is tapped will change to "right-click."
Also, the touchscreen switching icon on the taskbar ( or ) will be reversed.


NOTE

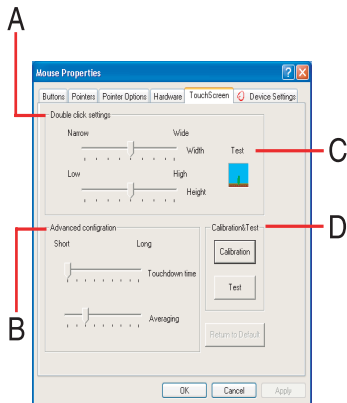
- Select  to view [Important Tips] for using the touchscreen. You can also view [Important Tips] using the following procedures.
Select [Important Tips] in [start] - [All Programs] - [Panasonic] - [On-Line Manuals].
-

Configuring the Touchscreen

When needed, the touchscreen can be configured using the following steps.

1 Display [Mouse Properties] screen.


Double-click  on the taskbar and then select [TouchScreen] or select [TouchScreen] in [start] - [Control Panel] - [Printers and Other Hardware] - [Mouse].



- A. Double click settings
Set the width and height of the double click.
- B. Advanced configuration
Set the advanced settings.
- C. Test
Test for the "Double click settings".
- D. Calibration & Test
Define the calibration setup. Use this procedure when the cursor, the stylus (included) touches do not appear to agree. (Necessary for changes in the alignment of the touchscreen with visual images or an adjustment of the display resolution.)
Touch the "+" mark on the calibration screen for about one second.
After the calibration procedure is executed (e.g., after the nine "+" marks are touched), the procedure ends when **Enter** is pressed.

2 Make necessary changes and select [OK].

NOTE

- The double-click speed of the touchscreen can be changed in [Buttons].
- For more information, click  at the upper right corner.

Handling the Touchscreen

- Use the stylus included with the computer. Do not use pencils, implements with sharp tips or hard objects for screen operations.
The screen may be damaged as a result.
- Do not place any object on the surface or press down forcefully with sharp-pointed objects (e.g., nails), or hard objects that can leave marks (e.g., pencils and ball point pens).
- Do not apply pressure to the perimeter of the display panel. The cursor may move to the edge of the display.
- Do not operate the computer when such things as dust are on the screen. Do not allow contact with substances that could dirty the touchscreen, such as oil.
- **When the touchscreen becomes dirty:**
 - Wipe to remove dirt by using a dry soft cloth included with the computer.
 - Do not use benzene or thinner, or rubbing alcohol.
 - For more information, refer to "Suggestions About Cleaning the LCD Surface" that comes with the soft cloth.

Handling the Stylus

- Clean the stylus tip and screen prior to operation. Foreign particles can scratch the screen and impede the operation of the stylus.
- Use the stylus only for the computer screen.
Using it for any other purpose may damage the stylus and scratch the screen.

Starting Up Your Computer Quickly

If you use the standby or hibernation function, you can shut down the computer without closing programs and documents. Upon restarting your computer from either the standby or hibernation mode, you can immediately continue working in all programs, or documents that were open at the time the computer was placed into standby or hibernation mode.

Differences between the Standby and Hibernation Functions

Function	Where data is saved to	Time until resume	Requires power supply
Standby function	Memory	Short	Yes (if power is cut, all data is lost)
Hibernation function	Hard disk	Rather long	Power is not required to maintain data

NOTE

- We recommend plugging in the AC adaptor if the standby function is to be used for a long period of time. If the AC adaptor cannot be connected, we recommend that hibernation mode be used instead of the standby mode.
- If the standby or hibernation function is used repeatedly, the computer may not work properly. To stabilize computer operations, shut down Windows on a regular basis (about once a week) without using the standby or hibernation function.

Entering the Standby or Hibernation Mode

Use any of the following methods to enter the standby or hibernation mode. To use the hibernation mode, set [Power Options] in advance (→ [page 24](#)). (Enabled in factory preset.)

- Using Fn key combinations (→ [page 6](#))
- Using the power switch (→ [page 25](#))
- Using the display (→ [page 26](#))

- From the shutdown screen
 - Standby
In [start] - [Turn Off Computer], select [Stand By].
 - Hibernation
In [start] - [Turn Off Computer], press and hold **Shift**, then select [Hibernate].



Setting for Using the Hibernation Mode

At the time of purchase, the computer is set so that hibernation mode can be used.

- 1** Select [start] - [Control Panel] - [Performance and Maintenance] - [Power Options].
- 2** In [Hibernate], add the check mark for [Enable hibernation] and select [OK].

Precautions

■ Before entering the standby or hibernation mode

- Be sure to save all data.
- When a file in an external device such as a CD drive, external hard disk, or ATA card is opened, close the file.
- Even when a password has been set in the Setup Utility, [Enter Password] does not appear when the computer resumes from the standby or hibernation mode. If you want to use the security function when using the standby or hibernation mode, use the Windows password as follows:
 - ① Select the account to change in [start] - [Control Panel] - [User Accounts].
 - ② Set the password.
 - ③ Add the check mark for [Prompt for password when computer resumes from standby] in [start] - [Control Panel] - [Performance and Maintenance] - [Power Options] - [Advanced].
- Do not enter either the standby or hibernation mode under the following conditions. You may corrupt your data or file, the standby or hibernation function may not work, or the computer (or peripherals) may fail to work properly.
 - While the hard disk drive indicator  or SD memory card indicator  is on.

- When playing/recording audio files and displaying images (such as MPEG files).
- When using communications software or the network function.
- When using peripheral devices.
If these devices fail to work properly, restart the computer.
- After resuming from hibernation mode or standby mode, the computer may not work properly, or may not be able to connect to the network.

■ When entering the standby or hibernation mode

Standby mode: until the power indicator blinks green

Hibernation mode: until the power indicator goes off

- Avoid the following:
 - Touching the keyboard, touch pad, touchscreen, or power switch.
 - Using external mouse or other peripheral devices.
 - Connecting or disconnecting the AC adaptor.
 - Closing or opening the display.
- It may take one or two minutes to enter standby or hibernation mode.

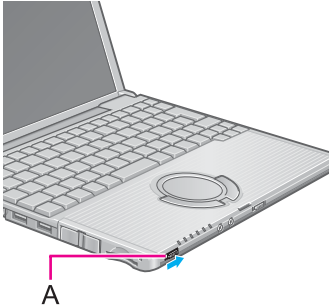
■ In standby or hibernation mode

- Do not insert or remove peripherals; abnormal operation may result.
- In standby mode, power is consumed. If PC Cards are inserted, more of that power is consumed. When all power has been consumed, all data saved at standby is lost since it is retained in memory. We therefore recommend plugging in the AC adaptor when using the standby function.

Using the Power Switch

■ Setting

- 1** Select [start] - [Control Panel] - [Performance and Maintenance] - [Power Options] - [Advanced].
- 2** Select [Stand by] or [Hibernate] for [When I press the power button on my computer], and then select [OK].



■ Entering the standby or hibernation mode

- 1 Slide the power switch (A); at the beep^{*1} sound, release your finger. The computer will enter either the standby or hibernation mode, depending on the setting.

CAUTION

- After releasing your finger from the power switch, do not touch the power switch until the power indicator goes off or blinks.
- At the beep^{*1} sound, release your finger from the power switch. If you continue to slide the power switch and hold it for more than four seconds, the computer will emit a second beep^{*1} then power off. Data not previously saved will be lost. Even when [When I press the power button on my computer] is set to [Shut down] with [start] - [Control Panel] - [Performance and Maintenance] - [Power Options] - [Advanced], if you slide the power switch for more than four seconds and do not release it, a second beep^{*1} will sound and the power will be turned off forcibly. Data not previously saved will be lost.

^{*1} When the speaker function is disabled, e.g., by the key combination **Fn+F4**, there will be no beep sound.

Using the Display

■ Setting

- 1 Select [start] - [Control Panel] - [Performance and Maintenance] - [Power Options] - [Advanced].
- 2 Select [Stand by] or [Hibernate] for [When I close the lid of my portable computer], and then select [OK].

■ Entering the standby or hibernation mode

- 1 Close the display.

The computer will enter either the standby or hibernation mode, depending on the setting.

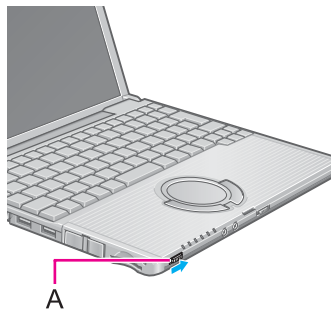
- When entering the standby or hibernation mode, close the display correctly. If you do not do so, (for example, if you open the display soon after you close it) the computer may not enter standby or hibernation mode.

Resuming Operation

CAUTION

- Until resuming is complete (requires about 15 seconds, or 60 seconds if connected to a network, after the display returns), avoid the following:
 - Touching the keyboard (except for password input), touch pad, touchscreen, or power switch.
 - Using external mouse or other peripheral devices.
 - Connecting or disconnecting the AC adaptor.
 - Closing or opening the display.
 - Shutting down or restarting Windows.
 - Entering either the standby or hibernation mode again.

Using the Power Switch



- 1 Slide the power switch (A).

Using the Display

When [Stand by] or [Hibernate] is selected as the setting for [When I close the lid of my portable computer] (→ [page 26](#)), you can resume operation using the following procedure.

- 1** Open the display.
Even if the display is closed after the computer has entered either the standby or hibernation mode, operation will resume when the display is opened. If the computer does not resume when the display is opened, slide the power switch.

To prevent unauthorized access of your computer, the various security measures are provided below.

Situation	Function to use
You do not want the settings in the Setup Utility to be changed	<ul style="list-style-type: none">● Supervisor Password (See below)● User Password (→ page 31)● SD Memory Card Security Function (→ page 55)
You do not want your computer to be used without permission	<ul style="list-style-type: none">● Password on boot (→ page 32)^{*1}
You do not want the data on the hard disk to be read, or data to be written to the hard disk, in cases including theft	<ul style="list-style-type: none">● Hard Disk Lock (→ page 33)^{*1}
You want to prevent theft of your computer	Security lock (⇒ <i>Operating Instructions</i> "Names and Functions of Parts")

^{*1} You need to set the Supervisor Password beforehand.

NOTE

- Windows has a security function that differs from the above security measures. For detailed information, refer to the Windows help.
- For security functions for the wireless LAN: → [page 76](#)

Setting the Supervisor Password (enabling, changing, disabling)

- 1 Run the Setup Utility. (→ [page 79](#))
- 2 Using either $\overrightarrow{\text{→}}$ or $\overleftarrow{\text{←}}$, select [Security].
- 3 Using either $\overup{\text{↑}}$ or $\overdown{\text{↓}}$, select [Set Supervisor Password] and press **Enter**.

- 4 Only when the Supervisor Password has been set:
Enter your password at [Enter Current Password] and press **Enter**.
- 5 Enter your password at [Enter New Password] and press **Enter**.
 - To disable the Supervisor Password
Press only **Enter**.
- 6 Re-enter your password at [Confirm New Password] and press **Enter**.
 - To disable the Supervisor Password
Press only **Enter**.
- 7 At [Setup Notice], press **Enter**.
- 8 Press **F10** and select [Yes], then press **Enter**.

CAUTION

- Do not forget your password. If your Supervisor Password is forgotten, you will be unable to use your computer. Contact your technical support office.
 - When running the Setup Utility, do not leave your computer even for a short time, as the possibility exists for the password to be set/changed by another person.
-

NOTE

- Your password will not be displayed on the screen.
 - Only up to seven alphanumeric characters can be used.
 - There is no distinction between upper and lower case letters.
 - Use only the upper horizontal row of numeric keys to input your password.
 - Do not input your password while holding down on **Shift** or **Ctrl**.
 - Disabling the Supervisor Password also disables the User Password.
-

Setting the User Password (enabling, changing, disabling)

NOTE

- When the Supervisor Password has not been set, the User Password can not be set. Set the Supervisor Password if you have not done so. (→ page 29)
- To disable the User Password, start up the Setup Utility with the Supervisor Password.

- 1 Run the Setup Utility. (→ page 79)
- 2 Using either $\overrightarrow{\hspace{1em}}$ or $\overleftarrow{\hspace{1em}}$, select [Security].
- 3 Using either $\overup{\hspace{1em}}$ or $\overdown{\hspace{1em}}$, select [Set User Password] and press **Enter**.
- 4 Only when the User Password has been set:
Enter your password at [Enter Current Password] and press **Enter**.
- 5 Enter your password at [Enter New Password] and press **Enter**.
 - To disable the User Password
Press only **Enter**.
- 6 Re-enter your password at [Confirm New Password] and press **Enter**.
 - To disable the User Password
Press only **Enter**.
- 7 At [Setup Notice], press **Enter**.
- 8 Press **F10** and select [Yes], then press **Enter**.

CAUTION

- Do not forget your password. If a password is forgotten, you will be unable to use your computer. If this happens, ask a person who knows the Supervisor Password.
- When running the Setup Utility, do not leave your computer even for a short time, as the possibility exists for the password to be set/changed by another person.

NOTE

- Your password will not be displayed on the screen.
- Only up to seven alphanumeric characters can be used.
 - There is no distinction between upper and lower case letters.
 - Use only the upper horizontal row of numeric keys to input your password.
 - Do not input your password while holding down on **Shift** or **Ctrl**.
- When you do not want the User Password enabled or changed without permission:
 - ① Run the Setup Utility and enter the Supervisor Password.
 - ② Go to [Security] menu. Using **↑** and **↓**, select [User Password Protection] and press **Enter**.
 - ③ Using either **↑** or **↓**, select [Protected] and press **Enter**.

When you do not want your computer to be used without permission

When [Password on boot] is set to [Enable], it is impossible to start the computer without the password.

NOTE

- You cannot set [Password on boot] without setting the Supervisor Password. Set the Supervisor Password if you have not done so. (→ page 29)
- When starting up the Setup Utility, the password input screen will be displayed if a Supervisor Password or Use Password has been set, even if [Password on boot] is set to [Disable].

Setting the Password on boot (enabling, disabling)

- 1 Run the Setup Utility. (→ page 79)
- 2 Using either **→** or **←**, select [Security].
- 3 Using either **↑** or **↓**, select [Password on boot] and press **Enter**.

- 4 Select [Enable] or [Disable].
 - To enable the Password on boot
Select [Enable] and press **Enter**.
 - To disable the Password on boot
Select [Disable] and press **Enter**.
- 5 Press **F10** and select [Yes], then press **Enter**.

Starting Up When the Password on boot is Set

Enter Password []

The screen shown at left is displayed.

Enter your password^{*1} and press **Enter**.

- When the correct password is input, the computer will start.
- When three incorrect password attempts or nothing is input for one minute, the computer will power off.

^{*1} Supervisor Password or User Password set in the Setup Utility (not the Windows password).

When you do not want the data on the hard disk to be read/written

When the Hard Disk Lock is set to [Enable], it is impossible to read/write data from/to the hard disk when the hard disk is inserted in a different computer, since a password is also set for the hard disk. When the hard disk is returned to the original computer, you can read and write data as before. In this case, however, make the settings in the Setup Utility exactly the same as they were before the hard disk was removed.

It is possible to set the Hard Disk Lock even if [Password on boot] is set to [Disable], but we recommend that [Password on boot] be set to [Enable] for security reasons.

(Note that this Hard Disk Lock does not guarantee complete protection of data.)

NOTE

- In the default setting, [Hard Disk Lock] is set to [Disable].
- You cannot set [Hard Disk Lock] without setting the Supervisor Password. Set the Supervisor Password if you have not done so. (→ [page 29](#))

- The hard disk lock function only works with the internal hard disk. This function does not work with the external hard disk.
-

Setting the Hard Disk Lock (enabling, disabling)

- 1 Run the Setup Utility. (→ [page 79](#))
- 2 Using either → or ←, select [Security].
- 3 Using either ↑ or ↓, select [Hard Disk Lock] and press Enter.
- 4 Select [Enable] or [Disable].
 - To enable the Hard Disk Lock
Select [Enable] and press Enter. At [Caution], press Enter.
 - To disable the Hard Disk Lock
Select [Disable] and press Enter.
- 5 Press F10 and select [Yes], then press Enter.

CAUTION

- If your computer requires repair
 - Be sure to set [Hard Disk Lock] to [Disable].
-

Saving Power

One of the main features of notebook-type computers is that you have the power of computing away from your home or office. In the following, information is provided on how to maximize use of the battery pack which is necessary for such computing.

- **Four Important Points**

- **POINT 1**

Be sure to charge your battery before and after use.

- **POINT 2**

To get the maximum use of your battery, set the power management mode.

- **POINT 3**

Check to see that you have your AC adaptor with you before leaving your home or office.

Purchasing a spare battery (CF-VZSU24U/CF-VZSU24AU) is highly recommended.

- **POINT 4**

Always watch your battery level!

Power Saving Methods

- **Change [Power Schemes]**

Select [start] - [Control Panel] - [Performance and Maintenance] - [Power Options], and then set [Power schemes] to [Max Battery].

Power consumption can also be minimized with detailed settings; for example, by reducing the time setting for [Turn off monitor].

- **Adjust the brightness (darker) with **Fn+F1** (→ page 4)**

- **Leave your computer off when it is not in use**

(⇒ *Operating Instructions* "Starting Up/Shutting Down")

- **Before stepping away from your computer, press **Fn+F7** or **Fn+F10** to put your computer in the standby or hibernation mode (→ page 6)**

- **Remove peripheral devices (USB devices, PC Cards, external mouse, etc.) when not in use**

- **We recommend turning the wireless LAN off when it is not used or out of range**

- **We recommend against using applications that place a significant load on the CPU**
Some screensavers place a large burden on the CPU even when you are not operating the computer.

We recommend that you do not use a screensaver.

- **We recommend that you fully charge the battery pack beforehand**

- Refer to [Important Tips] as well (→ [page 37](#))

CAUTION

- When installed in a network environment (except when the Wake Up from LAN function is in use).
Do not use the standby or hibernation mode.
After resuming operation from the standby or hibernation mode, the network connection may be severed or the computer will not work properly.
-

To Avoid Problems When Remaining Battery Power Is Low

We recommend that you check in advance regarding battery power confirmation methods (→ [page 38](#)) and alarm settings for warning when battery power is low (→ [page 41](#)). Alarm settings can be changed.

NOTE

- When using the computer while on the move, we recommend that you always carry the AC adaptor as well.
-



For using the battery pack, select Important Tips to view [Important Tips].

Important Tips provides information on how to maximize use of the battery pack, which is necessary for computing away from your home or office. You can also view [Important Tips] using the following procedures.

Select [Important Tips] in [start] - [All Programs] - [Panasonic] - [On-Line Manuals].

Use the Battery Indicator to Check the Battery Status

Battery Indicator	Battery Status
Not lit	Battery pack is not connected or charging not being performed.
Orange ^{*1}	Charging in progress.
Green ^{*1}	Fully-charged.
Red	The battery level is very low (the charge is approx. 9% or less). Connect the AC adaptor. You can use the computer when the battery indicator light is orange. If you do not have an AC adaptor, save your data and power off your computer. After replacing the battery pack with a fully charged one, turn your computer on.
Blinking red ^{*1}	Battery pack or charging may not be working properly. Quickly save your data and power off your computer. Remove the battery pack and disconnect the AC adaptor, then connect them again. If the problem persists, contact your technical support office. Possible failure in the battery pack or charging circuit.
Blinking orange ^{*1}	Battery cannot be recharged temporarily because the internal temperature of the battery pack is outside of the acceptable temperature range for recharging. Once the allowable range requirement is satisfied, charging begins automatically. Your computer can be used normally in this state.

^{*1} When the AC adaptor is connected.

NOTE

- This computer prevents overcharging of the battery by recharging only when the remaining power is less than approx. 95% of capacity after the battery is fully charged.

Check the Remaining Battery Power

There are three methods to check the remaining battery power.

- Press **Fn+F9**. (After logging on to Windows)(→ [page 39](#))
- Check the Windows battery meter. (After logging on to Windows)(→ [page 39](#))
- Check the number of lighting LED indicators. (When the power is off or in standby/ hibernation mode) (→ [page 40](#))

NOTE

- In the following cases, there may be a difference between the remaining battery capacity displayed on the indicator and the actual remaining battery capacity. To correct this, perform the "Battery Recalibration." (→ [page 42](#))
 - The battery indicator light remains red.
 - The battery remaining displays 99% and the indicator light is orange for a long period of time.
 - Low battery warning appears after a short period of time.
This may be caused by the use of standby mode for long periods of time. The battery is discharging while the computer is in standby mode when the AC adaptor is not connected.
- The remaining battery power and remaining time indicated in the Windows battery meter ([Power Meter] in [Power Options Properties]) are calculated based on the computer's usage conditions at that time, so these displays may change when usage conditions change. (These displays are only a guide.)
The remaining battery power displayed using **Fn+F9** is calculated differently, so displays may differ to some degree. This is not a malfunction.

Press **Fn+F9** to Check the Remaining Battery Power on the Screen
(After logging on to Windows)




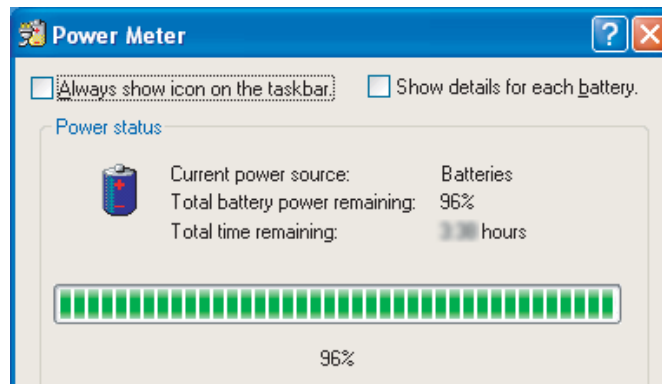
When the battery pack is inserted in the computer (example)



When the battery pack is not inserted in the computer

Check the Remaining Battery Power and Remaining Time using the Windows Battery Meter

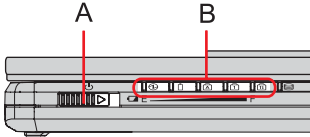
Display by selecting the  in the taskbar when the AC adaptor is not connected. The remaining battery power and remaining time indicated are calculated based on the computer's usage conditions at that time, so these displays may change when usage conditions change. (These displays are only a guide.)



Check the Number of Lighting LED Indicators (When the power is off or in standby/hibernation mode)

You can view the remaining battery capacity using the following procedure.

- 1 Close the display and confirm that the latch is locked.
- 2 Disconnect the AC adaptor.
- 3 Slide the power switch (A) and check the number of lighting LED indicators (B).



The number of lighting LED indicators (B)	Remaining Battery Capacity
0	0 % - 4 %
1	5 % - 24 %
2	25 % - 49 %
3	50 % - 74 %
4	75 % - 94 %
5	95 % - 100 %

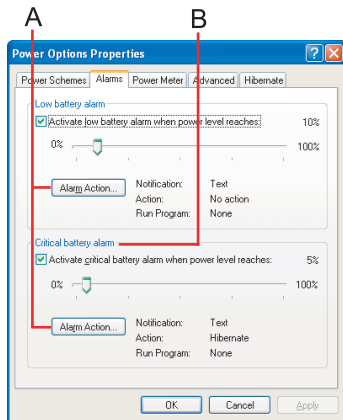
When the Remaining Battery Charge Becomes Low

The following is factory default setting.

When remaining battery capacity falls to 10% [Low battery alarm]	When remaining battery capacity falls to 5% [Critical battery alarm]
<ul style="list-style-type: none"> ● Displays a message indicating the low battery level. <p style="text-align: center;">↓</p>	<ul style="list-style-type: none"> ● Displays a message indicating the low battery level. ● The computer will enter hibernation mode. <p style="text-align: center;">↓</p>
<p>Charge your battery.</p>	<p>Connect the AC adaptor or replace the battery before starting up the computer next time.</p>
<ul style="list-style-type: none"> ● Connect the AC adaptor immediately. If you do not have the AC adaptor with you, exit any programs currently running, then exit Windows, and confirm that the power indicator is off. ● If you have a fully charged spare battery, turn off the computer, replace the battery, and turn the computer on again. 	<ul style="list-style-type: none"> ● Connect the AC adaptor, then charge the battery. ● If you have a fully charged spare battery, turn off the computer, replace the battery, and turn the computer on again. After the computer enter hibernation mode when the battery runs down, if computer operations are resumed without charging battery, Windows may not start up properly, and in some cases the alarm function may not operate properly from that point on.
<ul style="list-style-type: none"> ● Do not replace the battery pack while the computer is in standby mode. Otherwise, all unsaved data will be lost. 	

Above settings can be changed.

- ① Display [Alarms] screen.
Select [start] - [Control Panel] - [Performance and Maintenance] - [Power Options] - [Alarms].
- ② Set alarm operations and remaining battery level for operating alarm functions.
When disabling the speaker by pressing **Fn+F4**, the sound alarm is also disabled.



- A. When making a setting for [When the alarm goes off, the computer will] in [Alarms] - [Alarm Action]:
Add a check mark for [Force stand by or shutdown even if a program stops responding.].
- B. Set the value for [Critical battery alarm] to 5% or more.
This is necessary for the standby or hibernation function to be completed (assuring data is saved) when the battery level is low.

Accurately Displaying Battery Capacity (Battery Recalibration)

The battery pack has a function for measuring, storing and learning about battery capacity. Using the "Battery Recalibration" function to accurately display remaining battery capacity requires that the battery pack be fully charged (charged to 100%), then fully discharged. This procedure should be performed once after you purchase the computer. As you use the battery pack over a long period of time, the remaining capacity display may become inaccurate due to aging of the battery pack and other factors. The procedure described below should be performed again.

NOTE

- Perform the following procedure in a temperature range of 10°C to 30°C {50°F to 86°F}.
- If the computer is turned off while performing the "Battery Recalibration" (electrical power outage, accidental removal of the AC adaptor or battery pack, etc.), the "Battery Recalibration" will not be performed properly.
- "Battery Recalibration" does not increase the battery's capacity. If "Battery Recalibration" is executed frequently, deterioration of the battery may result.

- 1 Attach the battery pack, then connect the AC adaptor.
Remove all peripherals (except for the battery pack and AC adaptor).

- 2 Close all the application.
- 3 Use the "Battery Recalibration" to fully discharge the battery pack.
 - ① Run the Setup Utility. (→ [page 79](#))
 - ② Select [Battery Recalibration] from [Exit] menu and press **Enter**.
 - ③ At the confirmation message, select [Yes] and press **Enter**.
Once the battery indicator turns green, the battery pack will be completely discharged. It takes approximately 3 hours until the power automatically goes off through the complete discharge of the battery from the fully charged state.
- 4 Allow the battery pack to charge until the battery indicator turns green.
Charging Time: Approximately 3 hours.

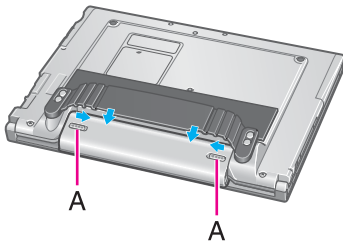
Replacing the Battery Pack

The battery pack is a consumable item and therefore will require replacement (CF-VZSU24U/CF-VZSU24AU). If the battery operation time becomes noticeably short, and if performance is not recovered even after executing Battery Recalibration, we recommend that the battery be replaced.

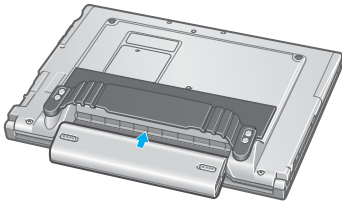
CAUTION

- Do not touch the terminals on the battery pack and the computer. The battery pack may no longer function properly if the contacts are dirty or damaged. Also, the computer may not operate properly.
- The battery pack is not charged when it is first purchased. Be sure to charge it before using it for the first time. When the AC adaptor is connected to the computer, charging begins automatically.
- Use only the specified battery pack (CF-VZSU24U/CF-VZSU24AU) with your computer.
- In the standby mode, do not remove/change the battery pack. Removing the pack in the standby mode will erase your data and may damage the computer.

- 1** Power off your computer.
(⇒ *Operating Instructions* "Starting Up/Shutting Down")
Do not shut down using the standby function.
- 2** Turn your computer over and remove the battery pack.
Remove the battery pack while sliding the latches (A) inward.



- 3** Insert the battery pack.
Make sure the battery pack is facing the correct direction, then slide it in the direction of the arrow, and then check to ensure that the battery pack is held firmly by the latches on the left and right sides.



CAUTION

- Be sure the battery pack is properly connected to the connector.
- When the battery pack has been removed, do not apply pressure from the top of the closed display. This may result in damage to the LCD.

SD-MovieStage makes it possible to record the multimedia contents stored on your hard disk drive or various other media onto an SD memory card.

Setting Up the SD-MovieStage

- 1 Select [start] - [Run], input [c:\util\sdmovie\setup.exe], then select [OK].
Follow the on-screen instructions.

NOTE

- At [Choose Destination Location], do not change the destination folder.
- At [Select the Video System], select [NTSC] or [PAL].

Running the SD-MovieStage

CAUTION

- Be sure to log on with the administrator authority when running the SD-MovieStage.

- 1 Select [start] - [All Programs] - [Panasonic] - [SD-MovieStage] - [SD-MovieStage].

NOTE

- The screensaver may not work while SD-MovieStage is running.
- For more detailed information, refer to the operation manual of the SD-MovieStage. Select [start] - [All Programs] - [Panasonic] - [SD-MovieStage] - [Manual].



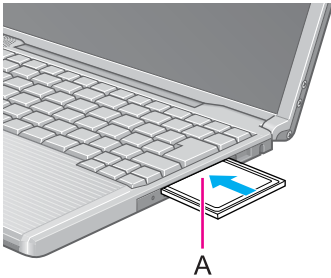
This slot conforms to the PC Card Standard; therefore, communications and SCSI devices may be utilized. The slot allows you to use one Type I or Type II card.

CAUTION

- Check the PC Cards' specifications. Be sure the total operating current does not exceed the specified limit. Damage may result otherwise.
Allowable Current: 3.3 V: 400 mA, 5 V: 400 mA
 - ZV card, SRAM card, FLASH ROM card (except for an ATA interface) and card requiring 12V are not supported.
 - With the repeated insertion/removal of a PC Card, the computer may no longer recognize the PC Card (depending on the type of card). In such cases, restart the computer.
 - If the computer freezes after resuming from the standby or hibernation mode, try removing and then reinserting the PC Card. If this does not correct the problem, restart the computer.
-

Inserting/Removing the PC Card

Inserting a PC Card



- 1 Simply slide the PC Card right-side-up until it snaps into place. Refer to the operating instructions of each card on how to insert the card. After the card is inserted, bend the eject button (A).


CAUTION

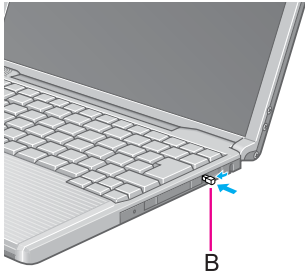
- When using a PC Card to connect a peripheral device (SCSI, IEEE 1394, etc.), install following procedure below (one example).
 - ① Connect the peripheral device to the card.
 - ② Turn the device on.
 - ③ Slide the card in until it snaps into place.
- When inserting a card, do not force the card in if difficulty is encountered. Depending on the shape of the card, a segment may remain protruding from the slot after insertion. Do not try to force the card all the way in. You may damage the slot, making it impossible to remove the card.

Removing a PC Card

CAUTION

- Do not remove a PC Card while your computer is in the standby or hibernation mode.
- Note that the operation of removing the PC Card may not be complete, depending on the status of the PC Card or device connected to the PC Card, such as when a SCSI card is used to connect an external hard disk to the computer. In such cases, turn off the power from [start] menu, then remove the card.

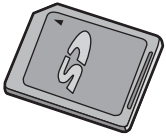
- 1 Disable the card function.
 - ① Select  on the taskbar, select the PC Card, then select [Stop].



- ② Follow the on-screen instructions.
(When the PC Card has been removed after the computer is turned off, this step is not necessary.)
- 2** Raise the bent part of the eject button (B).
- 3** Press the button (B).
- 4** Slide the PC Card out.

Both the SD memory card and the MultiMedia card can be used in this computer.

SD Memory Card



The SD memory card may be used in ways such as the following.

- Storing files, etc.
- Use to exchange data with devices equipped with an SD memory card slot.
- Write music data (checkout) to the card and listen to the music.
 - The SD memory card has a copyright protection function which is compatible with content on-demand services on the Internet, etc.
- Use instead of entering a password. (→ [page 54](#))
You can insert an SD memory card instead of entering a password to start your computer or log on to Windows.

■ Formats for SD memory cards

- Although your SD memory card has been formatted prior to purchase, when you re-format, use SD memory card format software. (Do not use [Format] of Windows.) Formatting software can be downloaded from our web site.
Address: http://panasonic.jp/support/audio/sd/download/sd_formatter_e.html
- When using the SD memory card with other peripheral devices, format the SD memory card using the peripheral device. For details, refer to the instruction manual for that device.

■ Data transfer rate

- The transfer rate using the SD memory card slot on this computer is 2MB^{*1} per second. The transfer rate is 2MB^{*1} per second even if you use an SD memory card that supports high-speed transfer rates.

^{*1} This is a theoretical value, and differs from actual speeds.

■ Important handling and storage information

- Always store the SD memory card in its case after removing it from a computer.
- Do not:
 - Take the SD memory card apart or try to modify it
 - Hit, bend, or drop the card, or allow it to get wet
 - Touch the metal terminals with your hands or with metal

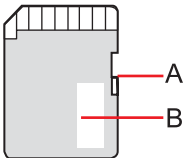
- Remove the labels on the card / Attach other labels or seals to the card
- Do not leave the card in the following locations:
 - Locations that can become very hot, such as inside a car that can become hot, or in direct sunlight.
 - Dusty locations or locations that are very humid.
 - Locations subject to corrosive gas, etc.

■ When logging on to Windows/ resuming from standby or hibernation mode

- Do not remove or insert the SD memory card until Windows has completed loading.
- After resuming from standby or hibernation mode, do not access the SD memory card for about 30 seconds.

■ Protecting important data

- Set the write-protect switch (A) to the LOCK position. Unlock the switch when you want to record (checkout), edit, or save data.
- Use an oil-base felt-tip pen to write in the memo area (B) on the card. Do not use a pencil or ball-point pen. Doing so can damage the card body or destroy data stored in the card.
- Do not remove the card or turn off the device in the following cases. Doing so can destroy data stored in the card.
 - While data is being read from the card
 - While data is being written to the card, or for a short time after the writing operation
 - While the SD memory card indicator (SD) is lit(Note that Panasonic assumes absolutely no liability for any loss of data recorded by the user, or any other damages, direct or indirect.)
- We recommend backing up important data to another storage medium.
- When disposing of cards, we recommend that you physically destroy the card (for example, using a hammer) to prevent personal or confidential data from being leaked.



MultiMedia Card (MMC)

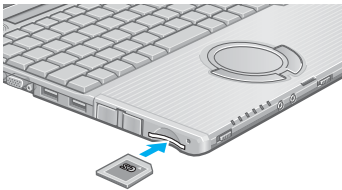
The MultiMedia card can be used in ways such as the following.

- Storing files, etc.
- Use to exchange data with devices equipped with a MultiMedia card slot.

This computer may be unable to use MultiMedia cards under some conditions; for example, if the MultiMedia card has been formatted using certain peripheral devices.

Inserting/Removing the SD Memory Card/MultiMedia Card

Inserting the Card




- 1 Insert the card firmly with the label side facing up and with the cut corner in front.

CAUTION

- Make sure you insert the card in the proper direction. If the card is inserted in the wrong direction, the card or slot may be damaged.

Removing the Card



- 1** Confirm the SD memory card indicator  turns off completely.
 - Do not remove the card while data is being read from or written to the card.
 - The computer may continue to access the card for some length of time after operations such as writing to the card. If you try to remove the card before the operation is completed, important data may be damaged, or it may not be possible to properly access the card the next time it is inserted.
- 2** When you press the card, it will come out of the slot a little bit. Now pull it all the way out.
 - If you try to force the card out of the slot while it is locked in place, the card or slot may be damaged.

SD Memory Card Drive Letter

To change the SD memory card/Multi Media card drive letter, use the SD Drive Letter Change Tool with the following procedure. Even if no SD memory card/MultiMedia card has been connected, a drive letter will still be displayed as "Removable Disk" in Explorer and other programs.

NOTE

- Log on with the administrator authority.
- The drive letter for A: Drive, B: Drive, C: Drive, and Z: Drive cannot be changed.

■ How to install the SD Drive Letter Name Change Tool

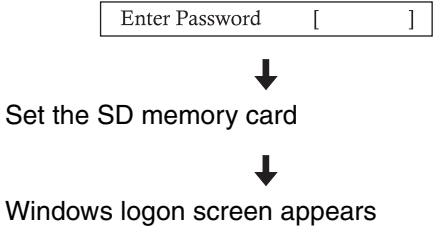
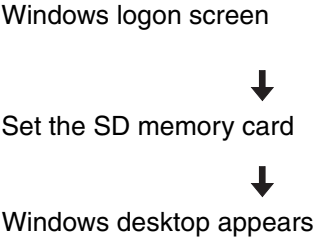
- ① Select [start] - [Run].
- ② Input [c:\util\chgsddrv\setup.exe] and select [OK], then follow the on-screen instructions.

■ How to change drive letter

- ① Select [start] - [All Programs] - [Panasonic] - [SD Drive Letter Change Tool].
- ② Select in [New drive letter], select the drive letter, and select [OK].

SD Memory Card Security Function

When you initialize an SD memory card, you can insert an SD memory card instead of entering a password for following cases.

● When starting the computer	● When logging on to Windows/ resuming from the standby or hibernation mode, or while the screensaver is active
 <pre>graph TD; A[Enter Password []] --> B[Set the SD memory card]; B --> C[Windows logon screen appears];</pre>	 <pre>graph TD; A[Windows logon screen] --> B[Set the SD memory card]; B --> C[Windows desktop appears];</pre>

NOTE

- Without using the SD memory card, you can also start your computer by entering the Supervisor Password or User Password.
- This security function can only be used with SD memory cards. The security function cannot be used with MultiMedia cards.

Before Initialization (SD Card Setup)

- **To use when starting the computer**
Set the Supervisor Password in the Setup Utility (→ [page 29](#)). You can also set it during the initialization procedure.
- To use when logging on to Windows/resuming from the standby or hibernation mode, or while the screensaver is active:
The Windows logon user and password must be set in [Control Panel] in advance. For information on how to set the user and the password, refer to the Windows Help.

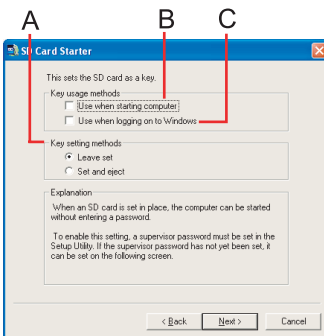
NOTE

- Use the formatted SD memory card. (→ [page 49](#))

- This security function only works in the SD memory card slot. It does not work in devices such as an SD card reader connected through a USB connection.
- An SD memory card with the settings can be used as an ordinary memory card in other devices as well.
- You can set the security function on a single SD memory card for multiple computers. Note, however, that if the card is used when logging on to Windows, all of the computers must use the same logon user and password as those on the SD memory card.

Initialization (SD Card Setup)

- 1** Log on with the administrator authority.
- 2** Insert the SD memory card in the SD memory card slot.
When [Removable disk] appears, select [Take no action], then select [OK].
- 3** Start the SD card setup program.
Select [start] - [All Programs] - [Panasonic] - [SD Card Setup].
 - If an SD memory card has not been inserted, the following message appears: [Set the SD card in place]. Insert an SD memory card and select [Retry].
- 4** Select [Next] in the Welcome screen.
- 5** Select the SD memory card setting method (A).
 - [Leave set]
To leave the SD memory card in place instead of entering a password. (The card may be removed after the computer or Windows is started.)
 - [Set and eject]
To set and eject the SD memory card instead of entering a password. The setting method is set separately for each computer. Different SD memory cards may not use different setting methods on the same computer.



If you use a different method between when starting the computer and when logging on to Windows:

In this screen, you can set the setting method for when logging on to Windows. To set the method when starting the computer, run the Setup Utility and change the

setting of [SD Setting Method] in [Security] menu after completing the SD Card Setup. (→ [page 84](#))

6 Make the settings according to the case to be used.

● To use when starting the computer

An SD memory card will be registered with the computer. (Up to two cards can be registered.)

- ① Add the check mark for [Use when starting computer] (B) and select [Next].
- ② Select [Restart the computer after entering settings], then select [Finish].
- ③ Enter the Supervisor Password.
 - If the Supervisor Password has been set
Enter the Supervisor Password, then select [OK].

- If the Supervisor Password has not been set

Follow the on-screen instructions to set the Supervisor Password. Enter the Supervisor Password, then press **Tab**.



Reenter the Supervisor Password for confirmation, then select [OK].



Select [Yes] on the confirmation screen.

[Supervisor Password] and [Password on boot] will be set to enable.

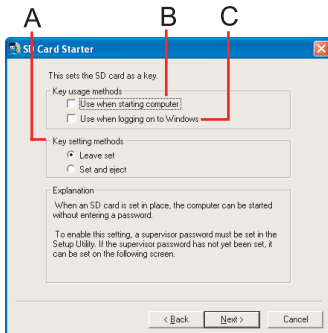
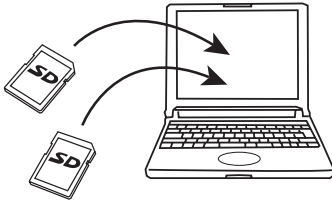
● To use when logging on to Windows

The Windows logon user name and password set in [Control Panel] are registered in the SD memory card.

After making this setting, the following functions will be disabled.

- Displaying the Welcome screen
- The Fast User Switching function
- Remote desktop connection

- ① Add the check mark for [Use when logging on to Windows] (C) and select [Next].
- ② Select [Restart the computer after entering settings], then select [Finish].
- ③ Set the Windows logon user name and password.
Enter the user name, then press **Tab**.
↓
Enter the password, then press **Tab**.





Reenter the password for confirmation.

- When you add the check mark for [Do not check the user name]:
A confirmation message will be displayed.
If you select [Yes], you can register a user name and password on the SD memory card that is not set in Windows.
In this case, when restarting the computer after completing the settings, enter the Windows user name and password to log on without using the SD memory card. After changing the user name and password according to those set on the SD memory card, you will be able to use it to log on.



Select [OK].

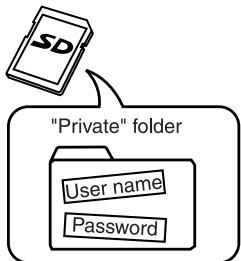


Select [Yes] on the confirmation screen.

A [Private] folder will be created in the SD memory card, and a Windows logon user name and password will be registered.

Do not delete [Private] folder. Doing so will cancel [Use when logging on to Windows].

- **To use both when starting the computer and when logging on to Windows**
Add the check mark to both [Use when starting computer] and [Use when logging on to Windows], and input supervisor password, user password, and other information according to the instructions on the screen. (→ [page 55](#))



In the Function fails to Operate Correctly

- The computer does not respond properly when you insert the SD memory card.
Remove the card and wait a few seconds, then reinsert it. Or, enter each password.
- The SD memory card indicator is blinking.
Enter the password through the keyboard without removing the SD memory card.
A software application, etc. may be accessing the SD memory card.
- The password input screen and the Windows logon screen does not appear.
If [Leave set] was selected as the setting method:
 - If an SD memory card is already inserted when starting the computer, the each screen does not appear when the computer is started.

- If an SD memory card is already inserted when resuming from the standby or hibernation mode, or while the screensaver is active, reinsert it.

When resuming from the standby or hibernation mode, or while the screensaver is active

- If [Set and eject] was selected as the setting method:
Insert the SD memory card, then eject it after you hear a beep indicating card recognition. (When the speaker function is disabled, e.g., by the key combination **Fn+F4**, there will be no beep sound.)

Change the Settings

After you run the SD Card Setup program once, the setup screen that appears the next time you run it will be different.

1 Start the SD card setup program. (→ [page 55 Step 1-3](#))
The current settings will be displayed.

2 Change the settings.

A. Setting for this computer

You can change the settings registered in this computer.

- [Use the SD card when starting the computer]
This setting can also be changed on [Security] menu of the Setup Utility.

- If you add the check mark
An SD memory card can be used when starting the computer.

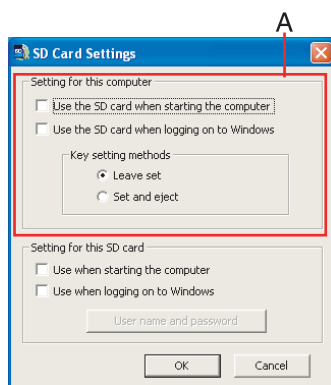
- If you remove the check mark
All SD memory cards currently registered on this computer will no longer be usable when starting this computer. Remove the check mark if there is a possibility of unauthorized card use by another party (e.g., if you lose an SD memory card).

To use the SD memory card again, add the check mark for [Use when starting the computer] under [Setting for this SD card]. It will be registered with the computer again.

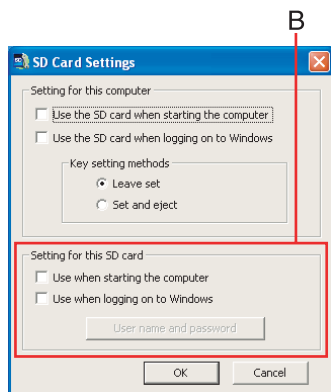
- [Use the SD card when logging on to Windows]

- If you add the check mark

The SD memory card can be used when logging on to Windows.



- If you remove the check mark
You will not be able to log on to Windows by inserting an SD memory card with a set password.



B. Setting for this SD card

You can initialize the SD memory card currently inserted or change its settings. If no SD memory card is inserted, none of the fields under [Setting for this SD card] can be selected.

- [Use when starting the computer]
 - If you add the check mark
This SD memory card can be used when starting the computer. A check mark is also added automatically in [Use the SD card when starting the computer].
 - If you remove the check mark
All SD memory cards currently registered on this computer will no longer be usable when starting this computer.
- [Use when logging on to Windows]
 - If you add the check mark
This SD memory card can be used when logging on to Windows.
 - If you remove the check mark
The user name and password will be erased from the SD memory card and the card will no longer be usable when logging on to Windows.
- [User name and password]
 - You can change the Windows logon user name and password which are set in the SD memory card.
 - The set user name appears, so enter the password and select [OK], then enter the new user name and password.
 - [User name and password] can not be selected if the check mark is not added to [Use when logging on to Windows].

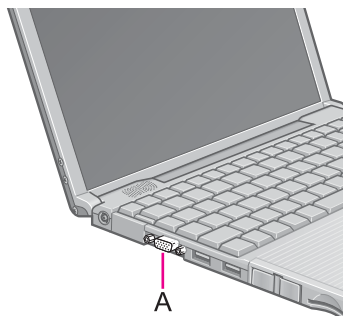
3 Select [OK].

Operation differs depending on the setting.

- If you add the check mark for [Use the SD card when starting the computer]:
Step ③ of [To use when starting the computer] in Step 6 (→ page 56)
- If you remove the check mark for [Use the SD card when starting the computer]:
① Enter the password and select [OK].

- ② At the confirmation message [The SD card information registered in the Setup Utility will be erased...], select [Yes].
 - If you add the check mark for [Use when logging on to Windows]:
Step ③ of [To use when logging on to Windows] in Step 6 (→ [page 56](#))
 - If you remove the check mark from [Use when logging on to Windows]:
 - ① Enter the password and select [OK].
 - ② At the confirmation message [The user name and password registered in the SD card will be erased...], select [Yes].
- 4** Restart the computer.

External Display



- 1** Power off your computer.
(⇒ *Operating Instructions* "Starting Up/Shutting Down")
Do not connect or disconnect devices while the computer is in standby or hibernation mode.
- 2** Connect the external display.
Connect the external display to the external display port (A) on your computer.
- 3** Turn on the external display, then turn on your computer.
After Windows starts up, the screen is displayed on the display destination set in the following menu.
[start] - [Control Panel] - [Other Control Panel Options] - [Intel(R) Extreme Graphics] - [Devices]

It is possible to change the setting to display only on the external display or on both the internal LCD and the external display with **Fn+F3**.

- 4** Set your external display.
Select [start] - [Control Panel] - [Other Control Panel Options] - [Intel(R) Extreme Graphics] - [Devices] - [Monitor] and make the settings.

NOTE

- The display destination after resuming from hibernation mode or after restarting may differ from the display destination before entering hibernation mode or before restarting.
When changing the display destination after Windows has started, do not press any keys or slide the power switch until the display destination has changed completely.
- Simultaneous display and display destination switching cannot be used while [Command Prompt] is set to "Full Screen".
- When the external display is used alone, set the number of colors, resolution, or refresh rate to suit the external display. These settings are separate from when the internal LCD is used alone or with an external display simultaneously.
- When the computer is set to display on both the internal LCD and the external display, MPEG files and other video files may not be played back smoothly.
- When connecting a monitor that does not conform to the Plug & Play standards:
Either select the correct external display driver using in the following menu. Or use the driver disk that was supplied with your monitor.
[start] - [Control Panel] - [Appearance and Themes] - [Display] - [Settings] - [Advanced] - [Monitor] - [Properties] - [Driver] - [Update Driver]

- If a picture is not displayed properly, lower the level of [Hardware acceleration] in the following menu.
[start] - [Control Panel] - [Appearance and Themes] - [Display] - [Settings] - [Advanced] - [Troubleshoot]
 - Also, carefully read the operating instructions of the external display.
-

Extended Desktop

With Extended Desktop, you can use both the internal LCD and the external display as an extended display domain. You can also drag a window from the internal LCD to the external display. To use Extended Desktop;

- 1** Display [Intel(R) Extreme Graphics] screen.
Select [start] - [Control Panel] - [Other Control Panel Options] - [Intel(R) Extreme Graphics] - [Devices].
- 2** Select [Extended Desktop], make the settings for [Primary Device] and [Secondary Device].
To make the settings for each display (colors, screen area, etc.), select [Device Settings] and change the settings where necessary, then select [OK].
- 3** Select [OK].
At the confirmation message, select [OK].

NOTE

- There are some applications that cannot be used in the Extended Desktop.
- When the button to maximize a window is pressed, one of the displays will show the maximized display.
- A window that has been maximized cannot be moved to the other display.
- You cannot switch the display destination by pressing **Fn+F3**.
- When the Extended Desktop is being utilized;
 - The pop-up window displayed by **Fn** key combination is shown only on the primary device.
- When changing the primary device ([1]) and secondary device ([2]), be sure to change them in the following menu. If you use other procedures, the window may not be displayed properly.

Select [start] - [Control Panel] - [Other Control Panel Options] - [Intel(R) Extreme Graphics] - [Devices] - [Extended Desktop]

Precautions

- When the application running is not shown on the display, refer to the following items.

- Under the condition the application is in the external display, or after the application is closed in the external display, there are cases the application will not be shown in the display when executed the next time if the position of the extended display is changed or the Extended Desktop is closed.

When there is no display after the position of the extended display is changed:

The application running is being displayed at the position of the extended display before the change. Return the position of the extended display to the condition before the change. Move the application to the internal LCD, and then correct the position of the extended display.

When there is no display when the Extended Desktop is disabled:

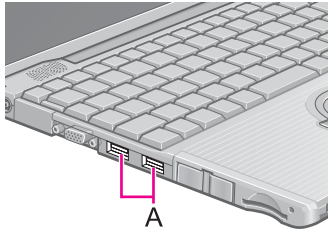
The application running is being displayed in the external display. Set the Extended Desktop again, move the application from the external display to the internal LCD and then disable the Extended Desktop.

- To prevent images from being burned onto the external display
 - Manually shut off the power to the external display when not in use.
- When the display domain for the Extended Desktop is changed, there are cases the wallpaper and icons become displaced.
 - Wallpaper: Change the setting for the wallpaper.
 - Icons: Right-click on the desktop, and select [Arrange Icons By] - [Auto Arrange].

- When an animated pointer is used for the mouse pointer (e.g., when changing the theme in [Appearance and Themes] of [Control Panel])
- An error may occur when resuming from the standby or hibernation mode. In such cases, change the mouse pointer to the standard pointer with the following procedure.
 - ① Display [Mouse Properties].
Select [start] - [Control Panel] - [Printers and Other Hardware] - [Mouse].
 - ② Select [Pointers].
 - ③ Select [None] in [Scheme], then select [OK].


Connecting/Removing USB devices

Connecting USB devices



- 1 Connect the USB device to the USB port (A) on your computer, referring to the operating instructions of the USB device.
You may need to install drivers compatible with the operating system you are using for your USB devices. Follow the on-screen instructions and refer to the operating instructions for USB devices on how to install the driver.

NOTE



- USB devices may be connected or removed without turning off the computer's power.
- When a USB device is connected, there are cases the standby or hibernation function will not operate in a normal manner due to the USB device. In addition, a USB device may have to be removed temporarily and the computer restarted in cases where the computer is unable to start up properly.
- Some devices will not operate when connected to a USB HUB; these devices must be connected directly to the USB port on your computer.
- Depending on the USB device connected, the computer may not recognize when the USB device is connected or disconnected, or the device may not operate properly.
 - ① In this case, select [start] - [Control Panel] - [Performance and Maintenance] - [System] - [Hardware] - [Device Manager].
 - ② Select [Universal Serial Bus Controllers] - [USB Root Hub].
 - ③ Select [Power Management] and remove the check mark from [Allow the computer to turn off this device to save power].
- When a USB device is removed and then inserted,  may appear in the Device Manager and the device may not be correctly recognized. If this happens, try removing and connect the device once more.
- When USB devices are connected, power consumption increases. Remove USB devices when not in use, especially when operating on battery power.
- After connecting the USB device to one port and installing the driver, it may be necessary to reinstall the driver when the device is connected to the other port.

Removing USB devices

CAUTION

- Do not remove a USB device while your computer is in the standby or hibernation mode.
- Save important data and close each application.

1 Disable the device function.

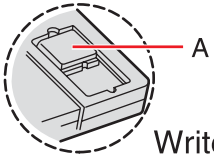
- ① Select  on the taskbar and select the USB device, then select [Stop].
- ② Follow the on-screen instructions.
(This step is not necessary when the USB device has been removed after the computer is turned off, if  is not displayed, or if the USB device that is going to be disconnected is not displayed in step ①.)

2 Remove the USB device.

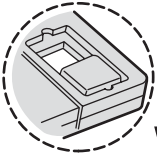
USB Floppy Disk Drive

Note the following when using an optional USB floppy disk drive (CF-VFDU03).

- Do not power off your computer or press the floppy disk drive eject button while the floppy disk drive being accessed.
Doing so may damage the data on the floppy disk and render the floppy disk useless.
- Use care when handling floppy disks.
To protect the data on your floppy disks or to prevent a floppy disk from becoming stuck in your computer, avoid the following:
 - Sliding the shutter on the floppy disk manually.
 - Exposing the disk to a magnetic field.
 - Storing the disk in locations prone to high temperatures, low pitched noise, dampness, or dust.
 - Applying more than one label on the disk.
- Confirm the contents of a floppy disk before formatting it.
Confirm that no important data is on the floppy disk, because all data on the floppy disk will be erased.



Write Enable



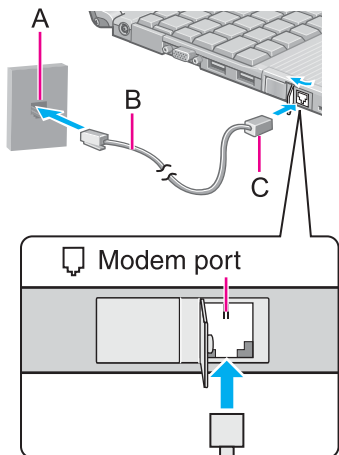
Write Disable

- Use the write-protect tab (A).
This is a must for preserving important data. This prevents your data from being erased or overwritten.
- The USB floppy disk drive cannot be used at the same time as other floppy disk drives.
- Do not directly open application files (e.g., Microsoft Word, Microsoft Excel) which are stored on the floppy disk.
First copy the files to the hard disk, then open the copied files from the hard disk.

Connecting the Internal Modem with a Telephone Jack

CAUTION

- Do not use the PBX internal phone lines installed in company offices. Doing so may lead to a fire or electric shock.
- It is not possible to connect the modem to any of the following lines.
 - Internal home phones
 - Intercoms
- Be sure to connect the modem telephone cable into the modem port, not into the LAN port.
- The modem may be damaged by sudden high voltage surges, as may occur in the event of a lightning strike. We recommend use of a surge protector.



- 1** Connect the computer and the telephone jack (A) using a modem telephone cable (included:B).

Open the modem cover, position the cable so that the tab (C) matches the port (⏏), and insert the cable until you hear a "click".

- 2** Change the settings as necessary.

- ① Select [Edit] in [start] - [Control Panel] - [Printers and Other Hardware] - [Phone and Modem Options] - [Dialing Rules], then select the location from which you will be dialing in [Country/region].
- ② Input the necessary information (items such as the area code, dialing rules, etc.), select [OK], then select [OK].

NOTE

- Do not enter either the standby or hibernation mode during communications.
- To remove the cable, pull out while pressing down on the tab.

Ring Resume Function

With this function, if the telephone that is connected to the modem rings in the standby mode, the power of the computer automatically switches ON.

This function is convenient when using automatic information receiving applications such as a FAX application.

When using this function, it is necessary to run a software application able to maintain the condition to receive telephone calls and to return the computer to the original condition after a call.

Enabling the Ring Resume Function

- ① Select [start] - [Printers and Faxes].
- ② Select [Set up faxing] in [Printer Tasks] on the left.
 - The fax icon is displayed.
 - This operation is not necessary next time.
- ③ Right-click on the fax icon and select [Properties].
- ④ In [Devices] - [Properties] - [Receive], add the check mark for [Enable device to receive] and select [OK].
- ⑤ Select [Device Manager] in [start] - [Control Panel] - [Performance and Maintenance] - [System] - [Hardware], and then select the internal modem from [Modems].
- ⑥ Select [Power Management], add the check mark for [Allow this device to bring the computer out of standby], then select [OK].

When using the settings in steps ①-④ above, the battery operation time will be shortened to some degree.

When not using the Modem Ring Resume function, we recommend removing the check mark from the [Enable device to receive] in the settings in step ④.

CAUTION

- When using this function, it is recommended that the AC adaptor be connected to the computer.
- Concerning the setting for [System standby]*1
 - Roughly consider the communication time and then set [System standby]. There may be cases where the computer enters the standby mode after the time set for

[System standby] elapses even during communications, and cuts off the communications.

- If [Never] is set, the computer will not enter the standby mode during communications, but once the computer resumes, the power of the computer will remain on while the user is absent.
- When the Ring Resume function is being used, some time elapses before a connection is established (equal to the time for the computer to resume). To allow the computer to resume, set the "Call" to a larger value than a typical telephone call. If it is not possible for the sending side to set a long "Call", set the "Number of rings until answer" (with the software application that is able to maintain the condition to receive telephone calls) to a small value.

*1 To display the setting for [System standby]:
Select [start] - [Control Panel] - [Performance and Maintenance] - [Power Options] - [Power Schemes].

NOTE

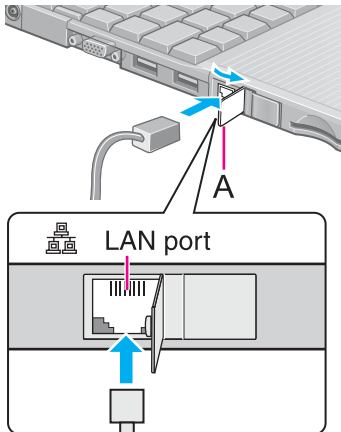
-
- This function does not work when the computer is off or is in hibernation mode.
 - After operations are resumed from standby mode, the screen remains dark. The former screen display will be restored when the keyboard, touch pad or touchscreen is touched.
 - The computer cannot resume if a telephone is connected to the line of a modem (e.g., a PC Card modem) other than the internal modem.
-

When using the computer as a network computer, some additional settings may have to be made depending on the usage conditions. We recommend asking your system administrator or the person in charge of the network.

Connecting LAN

CAUTION

- Do not connect the modem telephone cable into the LAN port.



1 Power off your computer.

(⇒ *Operating Instructions* "Starting Up/Shutting Down")

Do not connect or disconnect devices while the computer is in standby or hibernation mode.

2 Connect the cable.

Connect the LAN port (A) and the network system (server, HUB, etc.) using a LAN cable.

3 Turn on the computer.

CAUTION

- Do not use the standby or hibernation functions during communications (except when the Wake Up from LAN function is in use), as this may cause an error in data transmission or reception. The timeout function may engage even during data transmissions, causing the computer to automatically go into standby or hibernation mode. When not using the Wake up from LAN function, we recommend disabling the timeout function using the following menu.
[start] - [Control Panel] - [Performance and Maintenance] - [Power Options] - [Power Schemes]

NOTE

- If you are unable to connect to the network (when the indicator of your HUB unit does not light):

- ① Display [Device Manager] screen.
Select [Device Manager] in [start] - [Control Panel] - [Performance and Maintenance] - [System] - [Hardware].
 - ② Select the network adaptor you are using from [Network adapters].
 - ③ Select [Advanced].
 - ④ Confirm the settings of each item.
-

Wake up from LAN

This is a function of the internal LAN to automatically power the computer on from a network server when the computer is in the standby or hibernation mode. To use this function, it is necessary to have a network environment that accommodates Wake up from LAN.

Enabling the Wake up from LAN Function

- ① Select [Device Manager] in [start] - [Control Panel] - [Performance and Maintenance] - [System] - [Hardware].
- ② Select the internal network adaptor from [Network adapters].
- ③ Select [Power Management], add the check mark for [Allow the computer to turn off this device to save power] and [Allow this device to bring the computer out of standby], then select [OK].

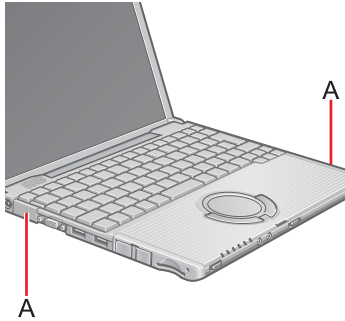
CAUTION

- Be sure to connect the AC adaptor, and enable the supply of power.
-

NOTE

- Even when a password is set in the Setup Utility and [Password on boot] is set to [Enable], it is not necessary to input the password set in the Setup Utility when the computer resumes from standby or hibernation mode.
- The Wake up from LAN function will not operate under the following conditions:
 - When the computer has been shut down.
 - When the power switch is slide over for four seconds or longer to turn off the power (e.g., when the computer hangs).

- When the AC adaptor and battery pack are removed from the computer or reattached to the computer.
 - After operations are resumed from standby mode, the screen remains dark. The former screen display will be restored when the keyboard, touch pad, or touchscreen is touched.
 - The computer may start up if accessed by another computer on the network. The following procedure can be used to prevent startup due to unintentional access by a computer.
 - ① Select [start] - [Control Panel] - [Performance and Maintenance] - [System] - [Hardware] - [Device Manager] - [Network adapters].
 - ② Select the internal network adaptor, and then select [Power Management].
 - ③ Add the check mark for [Only allow management stations to bring the computer out of standby], then select [OK].
-



If you use a wireless LAN, you can use a network without cable connections.

CAUTION



- Communication is performed through the wireless LAN antenna (A). Do not block the antenna area with your hand or otherwise interfere with the passage of the radio signals.
- Do not use the Fast User Switching function. The wireless LAN cannot be used.


NOTE


- The communication speeds and distances differ depending on the devices that support the wireless LAN, the installation environment and other ambient conditions.
- One characteristic of radio waves is that their transmission rate tends to drop as the communication distance increases. It is recommended that the devices supporting the wireless LAN be used in close vicinity to each other.
- The rate may drop while a microwave oven is being used.
- When using a wireless LAN in an environment that combines both IEEE802.11g and IEEE802.11b, communication speed when using IEEE802.11g may decrease.

Precautions

- Do not use wireless LAN on airplanes, in hospitals, or in other locations where wireless LAN signals may affect the operation of devices in the vicinity.
- Abide by instructions regarding use in airplanes and hospitals.
- If you intend to use the computer in the environments described above, turn the wireless LAN off using the following method:

- ① Double-click  or  on the taskbar.
- ② Select your wireless LAN adaptor and select [General].
- ③ Select [Off] for [Switch radio].
- ④ Select [OK].

The icon will turn to  .

- Do not select [Disable] using  with the right button.


- To prevent theft of data or unauthorized access to the hard disk via a wireless LAN.
 - If you plan to use wireless LAN functions, we recommend that you do so only after making the appropriate security settings, such as for encryption.
- We recommend turning the wireless LAN off when it is not used or out of range.
 - If you leave the wireless LAN on, the battery's operating time is shortened.

The Settings

To use the wireless LAN, set the profile using the following procedure. The settings will vary for different network environments depending on the network system being used. For more details, ask your system administrator or the person in charge of the network.

CAUTION



- Set profiles for each user using the following procedure.

- 1 Double-click  on the taskbar.
- 2 Select your wireless LAN adaptor and select [General].
- 3 Select [On] for [Switch radio].
- 4 Select [Networks] and select [Add].
- 5 Enter the profile name and network name (SSID), and then make other necessary changes, then select [Next].
- 6 Make necessary changes and select [Finish].
 - For security, we recommend that you enable encryption (WEP). If you enable WEP, enable encryption on the access point side as well. (The setting described below is only an example. For the other settings, ask your system administrator or the person in charge of the network.)
 - ① Select [64-bit] or [128-bit] from [Encryption Level].
 - ② Select [Use pass phrase] or [Use hex key], and input the pass phrase or key. In the case of ASCII character: [64-bit (5 characters)] [128-bit (13 characters)] . In the case of hexadecimal: [64-bit (10 digits)] [128-bit (26 digits)].
 - Set the same values for the computer side and the access point side.
 - When using an access point for which "128-bit" can be set (some access points display "104-bit"), we recommend setting data encryption to "128-bit" to prevent unauthorized decryption.

- 7 Select the profile you have set and select [Connect].
 - If the setting of the profile that is currently connected is changed, the new setting will not be enabled until you select the profile and then select [Connect].
- 8 Select [OK].

Check the Communication Status

Open the Intel PROSet using either of the following procedures.

- Select [start] - [All Programs] - [Intel Network Adapters] - [Intel(R) PROSet for Wireless].
- Select  or  on the taskbar to check the communication status.

For more information about how to use the Intel PROSet, refer to [Help] in the menu bar.

If the function fails to operate correctly

Read the operating instructions for the access point carefully and check the settings.

■ The access point fails to be displayed in [Available Networks]

- Select [Networks], then select the profile you are using, and select [Advanced]. [Connect to ad hoc networks only] may have been selected in [Connection preference]. In this case, select [Connect to infrastructure and ad hoc networks].
- This computer uses channels 1 through 11^{*1}. Check the channel being used by the access point.
- Ask your system administrator or the person in charge of the network.

^{*1} In the case of wireless communications, the frequency band being used can be divided into segments, so that different communications can be conducted on each band segment. A "Channel" refers to the individual frequency bandwidth divisions.

■ The access point cannot be accessed

- The network key setting may not conform to the access point.
Check the network key setting of the access point and, if necessary, set it again correctly.
- Depending on the access point and settings, access may not be accepted unless the computer's MAC address is registered beforehand. In this case, check the computer's

MAC address using the following procedure and register it according to the operating instructions of the access point.

- ① Display [Command Prompt].
Select [start] - [All Programs] - [Accessories] - [Command Prompt].
- ② Input [ipconfig /all], and press **Enter**.
- ③ Make a note of the 12-digit string of alphanumerics displayed on the wireless LAN's "Physical Address" line. Then input [exit], and press **Enter**.

■ The IP address of the access point is wrong

- Following the operating instructions of the access point, set the IP address of the access point again correctly.

The Setup Utility is a utility for setting the computer's operating environment (password settings, startup drive selection, etc.). The following six menu items are available. [Information], [Main], [Advanced], [Security], [Boot], [Exit]

Running the Setup Utility

- 1 Turn on or restart the computer.
- 2 Press **F2** while [Panasonic] boot screen is displayed soon after the computer begins the startup procedure.
If [Enter Password] is displayed, enter your password.
When the Setup Utility is started with Supervisor Password
 - You can register all items of the Setup Utility.When the Setup Utility is started with User Password
 - You can not register [Advanced] and [Boot] menu.
 - On [Security] menu:
 - [Clear registered SD card], [Set Supervisor Password] and [Hard Disk Lock] will not be displayed.
 - [Password on boot], [SD Startup], [SD Setting Method], [Setup Utility Prompt], [Boot First Menu] and [User Password Protection] will be displayed, but cannot be set.
 - The User Password can be changed only when [User Password Protection] has been set to [No Protection]. The User Password cannot be deleted.
 - [Get Default Values] will not be displayed on [Exit] menu.
 - **F9** does not work.

NOTE

- When [Password on boot] in the Setup Utility is set to [Disable], the password is not necessary when the computer is started up, but the password becomes necessary when the Setup Utility is started up. This alternative makes it possible to prevent the contents of the Setup Utility from being changed.
- If you fail to press **F2** at the right moment, the Setup Utility will not start up. In this case, power off the computer and try again.
- To close the Setup Utility, press **Esc**, select the exiting method in [Exit] menu, then press **Enter**.

Key Operations

- **F1**
To display the corresponding "help" file.
- **Esc**
To display [Exit] menu.
- **↑ ↓**
To move among the items.
- **← →**
To move among the menus.
- **F5 F6**
To move among the values.
- **Enter**
To display sub-menu of each item selected by ↑ or ↓.
- **F9**
To set default settings (except the password, System Time and System Date).
- **F10**
To save the settings and exit.

NOTE

- When setting date and time, **Tab** can be used to move the cursor.
-

Information Menu

Language:	[English]
Model No.:	CF-xxxxxxxx
Serial No.:	xxxxxxxx
CPU Type:	xx
CPU Speed:	x.x GHz
BIOS:	Vx.xxLxx
Embedded Controller:	Vx.xxLxx
System Memory:	xxx MB
Primary Master:	xx GB

■ Parameters

(Underline indicates settings at the time of factory shipment.)

Language	<u>English</u> Japanese
----------	----------------------------

Select the language for displaying the Setup Utility.

Main Menu

System Time:	[xx:xx:xx] ^{*1}
System Date:	[xx/xx/xxxx] ^{*2}
Touch Pad:	[Enable]
Fn/Ctrl Key:	[Normal]
Display:	[Simultaneous]
Display Expansion:	[Enable]

*1 Time is shown in 24-hr. style.

*2 Date is shown in order of Month/Day/Year.

■ Parameters

(Underline indicates settings at the time of factory shipment.)

Touch Pad	Disable <u>Enable</u>
Fn/Ctrl Key ^{*3}	<u>Normal</u> Replace
Display ^{*4}	External Monitor Internal LCD <u>Simultaneous</u>
Display Expansion	Disable <u>Enable</u>

*3 Select whether to switch the **Fn** functions with the **Ctrl** functions, and vice versa on the internal keyboard. Keep in mind is not possible to replace the markings on the keys, or the keys themselves.

*4 The display destination in cases where Windows is not running is set here. If an external display is not connected, all information will appear on the internal LCD even if [External Monitor] or [Simultaneous] is selected.
After Windows starts up, the screen is displayed on the display destination set in the following menu.
[start] - [Control Panel] - [Other Control Panel Options] - [Intel(R) Extreme Graphics] - [Devices]

Advanced Menu

Modem:	[Enable]
LAN:	[Enable]
Boot up from LAN:	[Enable]
Wireless LAN:	[Enable]
Legacy USB Support:	[Enable]

NOTE

- [Advanced] menu cannot be changed when the Setup Utility is started up with the User Password.

■ Parameters

(Underline indicates settings at the time of factory shipment.)

Modem	Disable <u>Enable</u>
LAN	Disable <u>Enable</u>
Boot up from LAN* ¹	Disable <u>Enable</u>
Wireless LAN* ²	Disable <u>Enable</u>
Legacy USB Support	Disable <u>Enable</u>

*¹ [Disable] is automatically set when [LAN] is set to [Disable]. This function works only for the internal LAN. This does not work for a wireless LAN nor a LAN card.

*² This function works only for the internal wireless LAN. This does not work for a wireless LAN card.

Security Menu

Password on boot:	[Enable]
SD Startup: ^{*1}	[Enable]
SD Setting Method: ^{*1}	[Leave Set]
▶ Clear registered SD card: ^{*1}	[Enter]
▶ Set Supervisor Password:	[Enter]
Setup Utility Prompt:	[Enable]
Boot First Menu:	[Enable]
Hard Disk Lock:	[Disable]
User Password Protection:	[No Protection]
▶ Set User Password:	[Enter]

^{*1} This is displayed only when an SD memory card has been registered. (→ [page 54](#))

NOTE

- When the Setup Utility is started up with the User Password;
 - [Clear registered SD card], [Set Supervisor Password] and [Hard Disk Lock] will not be displayed.
 - [Password on boot], [SD Startup], [SD Setting Method], [Setup Utility Prompt], [Boot First Menu] and [User Password Protection] will be displayed, but cannot be set.
 - The User Password can be changed only when [User Password Protection] has been set to [No Protection]. The User Password cannot be deleted.

■ Parameters

(Underline indicates settings at the time of factory shipment.)

Password on boot	Disable <u>Enable</u>
SD Startup ^{*2}	<u>Disable</u> Enable

SD Setting Method ^{*2*3}	<u>Leave Set</u> Set and Eject
Clear registered SD card ^{*2}	To the sub-menu
Set Supervisor Password	To the sub-menu
Setup Utility Prompt	<u>Disable</u> <u>Enable</u>
Boot First Menu	<u>Disable</u> <u>Enable</u>
Hard Disk Lock ^{*4}	<u>Disable</u> Enable
User Password Protection	<u>No Protection</u> Protected
Set User Password ^{*4}	To the sub-menu

^{*2} [SD Startup] and [SD Setting Method] cannot be set if [Password on boot] is set to [Disable].

^{*3} This can be set only if [SD Startup] has been set to [Enable].

^{*4} Setting impossible when the Supervisor Password is not set.

Boot Menu

Floppy Drive*¹
Hard Disk Drive
USB CD/DVD Drive*¹
LAN*²

*¹ The following drive can be used for startup (recommended).

Panasonic USB floppy disk drive : CF-VFDU03 (optional)

Panasonic CD drive : CF-VDRRT1M or CF-VDRRT2W (optional)

*² This is not displayed when [LAN] or [Boot up from LAN] is set to [Disable] on [Advanced] menu.

The default order is as follows:

[Floppy Drive] -> [Hard Disk Drive] -> [USB CD/DVD Drive] -> [LAN].

To move a device up by one in the order, select the device with ↑ and ↓, and then press **F6**.

To move a device down by one in the order, select the device with ↑ and ↓, and then press **F5**.

NOTE

- [Boot] menu cannot be changed when the Setup Utility is started up with the User Password.
- **Boot Menu**
The device for starting up the operating system can also be selected during computer start-up. After the computer is turned on, and **ESC** is pressed at [Panasonic] boot screen, [Boot Menu] (the device selection screen) will appear. When the setting of [Boot] menu is changed, the selection screen display will also change. [Boot Menu] is displayed only when [Boot First Menu] in [Security] menu is set to [Enable].

Exit Menu

Save Values & Exit
 Exit Without Saving Changes
 Get Default Values ^{*1}
 Load Previous Values
 Save Current Values

 Battery Recalibration
 Hard Disk Backup / Restore ^{*2}

^{*1} This item is not displayed when starting up the Setup Utility with the User Password.

^{*2} Only displayed when a backup area is created.

■ Parameters

Save Values & Exit	Exit the Setup Utility and save your changes to CMOS.
Exit Without Saving Changes	Exit the Setup Utility without saving your changes to CMOS.
Get Default Values	Set the Setup Utility to the default settings.
Load Previous Values	Load previous values from CMOS for all Setup items.
Save Current Values	Save your changes to CMOS.
Battery Recalibration	To accurately display remaining battery capacity, fully charge the battery pack, then fully discharge it. (→ page 42)
Hard Disk Backup / Restore	Backup data to a backup area in the hard disk. Also, restore backed up data to the original hard disk. Before executing, be sure to read "Hard Disk Backup Function" in the <i>Operating Instructions</i> .

How to Magnify the Computer Screen Display

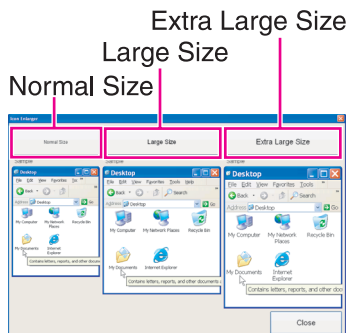
If the characters, icons, title bars, mouse cursor, or other items are too small and difficult to see on the screen, use the "Icon Enlarger," and change the screen display by switching among [Normal Size], [Large Size], and [Extra Large Size].

- Characters on Internet screens^{*1} displayed on Internet Explorer, as well as characters^{*1} in sent and received mail in Outlook Express and characters^{*1} in mail text boxes, change according to the settings in the "Icon Enlarger".
- In the default settings, [Normal Size] is set.

^{*1} Some characters in homepages and HTML e-mails may not be magnified.

NOTE

- Icon Enlarger will not start up if the display resolution is set lower than 1024 x 768 dots.
- When magnifying screen, a part of the menu or other screen elements may become hidden. In this case, overlay the cursor to display pop-ups, scroll the screen, or use other functions to display the hidden elements.
- Change the screen display after the other application has been closed.



- 1** Select [start] - [All Programs] - [Panasonic] - [Icon Enlarger].
- 2** Select the display size as [Normal Size], [Large Size], or [Extra Large Size].
- 3** Select [OK].
The screen will be displayed in the selected size.

Network Connections and Communications Software

If the power saving function (standby or hibernation mode) activates while communications software is being used, the network connection may be interrupted, or performance may be adversely affected. If this happens, restart the computer.

Be sure to close the communications software before using the power saving function.

When using the computer in a network environment, we recommend that you set [System standby] and [System hibernates] to [Never], using the following procedure:

Select [start] - [Control Panel] - [Performance and Maintenance] - [Power Options] - [Power Schemes].

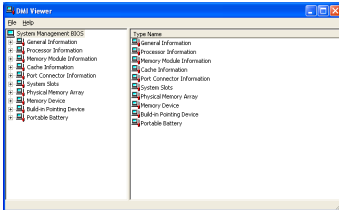
When Using the Files on the Retail Version of the Windows CD-ROM

The Windows files included in the Retail Version of the Windows CD-ROM for each OS are contained in the following folders:

c:\windows\docs, c:\windows\dotnetfx, c:\windows\i386, c:\windows\support,
c:\windows\valueadd

This computer conforms to the specifications of the Desktop Management Interface (DMI). The DMI Viewer can be used when you want to know information on the internal systems this computer supports, starting with the CPU and memory.

Running DMI Viewer



- 1 Select [DMI Viewer] from [start] - [All Programs] - [Panasonic].
The screen shown at left is displayed.
When you select an item, detailed information on that item will be displayed.

Saving information to a file

Displayed information can be saved to a text file (.txt). Run the DMI Viewer and display the information you wish to save.

- 1 Select save method.
 - To save the item that is displayed
Select [Save Selected Data] from [File] menu.
 - To save all items
Select [Save All Data] from [File] menu.
- 2 Select the folder, input the file name, then select [Save].

List of Error Codes

When turning on the computer, if one of the following error codes or messages is displayed, follow the instructions shown below.

If the problem persists, or if the error code or message displayed is not shown here, contact your technical support office.

Error Code/Message	Action
0212: Keyboard error	<ul style="list-style-type: none">● If an external keyboard is connected, disconnect this device.
0251: System CMOS checksum bad - Default configuration used	<p>An error has occurred in the memory that stores the Setup Utility settings. This error occurs when the memory content is changed through some inadvertent operation by a program or other function.</p> <ul style="list-style-type: none">● Run the Setup Utility and load the default values, then change the settings to the appropriate values as needed. (→ page 79)● If the problem persists, the internal clock battery may need to be replaced. Contact your technical support office.
0271: Check date and time settings	<p>The date and time setting are incorrect.</p> <ul style="list-style-type: none">● Run the Setup Utility and set the date and time correctly. (→ page 82)● If the problem persists, the internal clock battery may need to be replaced. Contact your technical support office.
0280: Previous boot incomplete - Default configuration used	<p>Startup has failed repeatedly, so the Setup Utility settings have been returned to their default values, and the computer has been booted.</p> <ul style="list-style-type: none">● Run the Setup Utility and load the default values, then change the settings to the appropriate values as needed. (→ page 79)
02B0: Diskette drive A error	<ul style="list-style-type: none">● Disconnect the floppy disk drive and reconnect it. Make sure the drive is secured correctly.
Press <F1> to resume, <F2> to Setup	<ul style="list-style-type: none">● Write down the error details and press F2 to run the Setup Utility. Confirm the settings, and change the settings to the appropriate values as needed. (→ page 79)

Error Code/Message	Action
Operating System not found	<p>The OS is not properly installed on the floppy disk or the hard disk that you are trying to boot from.</p> <ul style="list-style-type: none">● If the computer cannot be booted from the floppy disk, check the floppy disk drive to ensure that the disk is in fact bootable, and change it to another if not.● If the computer cannot be booted from the hard disk, confirm whether the hard disk is properly recognized in [Information] menu of the Setup Utility. If the hard disk is recognized, perform the reinstallation procedure. If not, contact your technical support office.● If a device is connected to the USB port, disconnect the device, or run the Setup Utility and set [Legacy USB Support] in [Advanced] menu to [Disable]. (→ page 79)

Dealing with Problems (Advanced)

When a problem occurs, refer to this page. If a problem appears to be related to a software application, read the software related manual. If you still cannot troubleshoot the problem, contact your technical support office. You can use the PC Information Viewer to check the computer's usage status (→ [page 106](#)).

■ Starting Up

The power indicator or battery indicator is not lit	<ul style="list-style-type: none">● Check the cable connection for the AC adaptor.● Check to see if a fully charged battery is properly inserted.● Remove the battery pack and disconnect the AC adaptor, then connect them again.
The computer does not operate when a USB device is connected	<ul style="list-style-type: none">● The computer may not operate when certain USB devices are connected. Disconnect the USB device, or set [Legacy USB Support] to [Disable] in [Advanced] menu of the Setup Utility.
[Enter Password] is displayed	<ul style="list-style-type: none">● Input your Supervisor Password or User Password. If you have forgotten it, contact your technical support office.
POST Startup Error(s) is displayed	→ page 91
Windows startup, or an operation is extremely slow	<ul style="list-style-type: none">● Press F9 in the Setup Utility (→ page 79). This will restore the Setup Utility's settings to their default values (except the password settings). Then, the Setup Utility must be run once again for you to input the appropriate operating environment settings. (The processing speed depends on the application software used, so this operation may not cause the processing speed to increase.)● If operations slow down during streaming playback, try changing the number of colors of the display.● Disable any resident software.
The date and time are incorrect	<ul style="list-style-type: none">● You can set the date and time using the following menu: [start] - [Control Panel] - [Date, Time, Language, and Regional Options] - [Date and Time]● If you continue to experience problems, the internal battery maintaining the clock may need to be replaced. Contact your technical support office.● When the computer is connected to a LAN, confirm the date and time of the server.● This computer will not correctly recognize the date and time starting from the year 2100 A.D.

■ Starting Up

<p>When resuming from the standby or hibernation mode, [Enter Password] does not appear even if a password has been set in the Setup Utility</p>	<ul style="list-style-type: none">● Even when a password has been set in the Setup Utility, [Enter Password] does not appear when the computer resumes from the standby or hibernation mode. If you want to use the security function when using the standby or hibernation mode, use the Windows password as follows:<ol style="list-style-type: none">① Select the account to change in [start] - [Control Panel] - [User Accounts] and set the password.② Add the check mark for [Prompt for password when computer resumes from standby] in [Control Panel] - [Performance and Maintenance] - [Power Options] - [Advanced].
<p>When the administrator password is forgotten</p>	<ul style="list-style-type: none">● If you have created a password reset disk (⇒ <i>Operating Instructions</i> "First-time Operation"), a message is displayed when you fail to correctly enter the password. Follow the message's instructions and set the password again by using the password reset disk. If you have not created a password reset disk, after reinstalling, setup Windows and then set the password again.
<p>When "Remove disks or other media. Press any key to restart" (or a similar message) is displayed</p>	<ul style="list-style-type: none">● This means a floppy disk that does not contain system startup information has been left in the floppy disk drive. Remove the floppy disk, and press any key.● This message may appear when certain USB devices are connected. Remove the USB device, or set [Legacy USB Support] in [Advanced] menu of the Setup Utility to [Disable].● If the message still appears even after trying the above measures, this may be an indication that some type of hard disk failure has occurred. Contact your technical support office.

■ Starting Up

<p>When the previous item is not the cause</p>	<ul style="list-style-type: none">● Press F9 in the Setup Utility. This will restore the Setup Utility's settings to their default values (except the password settings).● Try removing all peripheral devices.● Check a disk error using the following procedure.<ol style="list-style-type: none">① Display [Local Disk (C:) Properties]. Select [Local Disk(C:)] with the right button in [start] - [My Computer], and select [Properties].② Select [Tools] - [Check Now].③ Select [Start] after selecting required items in [Check disk options].● At startup, hold down F8 when [Panasonic] boot screen disappears^{*1}, and release your finger when the Windows Advanced Options Menu is displayed. Start the computer in Safe Mode, and confirm the details of the error. <p>^{*1} When [Password on boot] is set to [Enable], [Enter Password] appears after the [Panasonic] boot screen disappears. Hold down F8 soon after inputting the password and pressing Enter.</p>
--	---

■ Enter Password

<p>Even after entering the password, [Enter password] is displayed again.</p>	<ul style="list-style-type: none">● The computer may be in ten-key mode.
---	--

■ Display

<p>No display after powering on</p>	<ul style="list-style-type: none">● When there is no display to an external display,<ul style="list-style-type: none">• Check your cable connection to the external display.• Confirm your display is powered on.• Check the settings for your external display.● The display destination may be set to the external display. Try changing the display destination by pressing Fn+F3. If you want to switch the display destination repeatedly by pressing Fn+F3, make sure that the display destination has switched completely each time before pressing Fn+F3 again.● Press Fn+F2 and adjust the brightness.
-------------------------------------	---

■ Display

<p>The power has not been turned off, but after a certain period of time, there is no display</p>	<ul style="list-style-type: none">● Has the computer been set to the power-saving mode? To resume operation of your computer from the condition the power of the display is off (for energy conservation purposes), press any key unrelated to the direct triggering of a selection, like Ctrl.● To save power, your computer may have automatically entered the standby mode (power indicator blinks green) or hibernation mode (power indicator turns off). In such cases, slide the power switch.
<p>When the battery pack is used, the screen is darker than when the AC adaptor is connected</p>	<ul style="list-style-type: none">● Press Fn+F2 and adjust the brightness. Note, however, that when the brightness is increased, the battery running time will become shorter. Brightness can be set to separate levels for when the AC adaptor is connected and when it is disconnected.
<p>An afterimage appears (e.g., green, red, and blue dots remain on the display) or there are dots not displaying the correct colors</p>	<ul style="list-style-type: none">● If an image is displayed for a prolonged period of time, an afterimage may appear. This is not a malfunction. The afterimage will disappear when a different screen is displayed.● High-precision and advanced technologies are necessary in the production of color liquid crystal displays (color LCDs). Therefore, if 0.002% or less of the picture elements either fail to light or remain constantly lit (that is, more than 99.998% of elements are functioning properly), no defect is considered to exist.
<p>The screen becomes disordered</p>	<ul style="list-style-type: none">● Changing the number of colors and resolution of the display may affect the screen. Restart the computer.
<p>The external display no longer displays properly</p>	<ul style="list-style-type: none">● When an external display not compatible with the power saving mode is used with the computer, the display may not function correctly when the computer enters the power saving mode. In such cases, turn off the power to the external display.
<p>When you want to display the fonts or icons at a larger size</p>	<ul style="list-style-type: none">● Change the size of the icons, etc. using "Icon Enlarger" (→ page 88).● You can also change the settings as follows (for more details, refer to the Windows Help).<ol style="list-style-type: none">① Select [start] - [Control Panel] - [Appearance and Themes] - [Display] - [Appearance].② Select the font size in [Font size], and select [Effects] and then add the check mark for [Use large icons] to increase the icon size.③ Select [OK], then select [OK].

■ Display

During simultaneous display, one of the screens becomes disordered	<ul style="list-style-type: none">● Try changing the display by pressing Fn+F3.● If you continue to experience problems, try changing the display destination in the following menu.] [start] - [Control Panel] - [Other Control Panel Options] - [Intel(R) Extreme Graphics] - [Devices]● When [Command Prompt] is set to "Full Screen" by pressing Alt + Enter, the screen is displayed on one of the displays only. When the window display is restored by pressing Alt + Enter, the screen is displayed on both displays.
When an MPEG file is being played with Windows® Media Player, the display destination cannot be switched using Fn+F3	<ul style="list-style-type: none">● The display destination cannot be switched while a video such as an MPEG file is playing. Stop playing the video before switching the display destination.

■ Setup Utility

[Enter Password] is displayed	<ul style="list-style-type: none">● Enter the Supervisor Password or User Password. If you have forgotten it, contact your technical support office.
<ul style="list-style-type: none">● [Advanced] and [Boot] menu can not be registered● Some items in [Security] menu can not be registered● F9 does not work	<ul style="list-style-type: none">● Restart the Setup Utility with the Supervisor Password.

■ Shutting Down

Windows cannot be shut down or restarted	<ul style="list-style-type: none">● If a USB device is connected, try removing it.
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■ Standby/Hibernation Function

Unable to enter standby or hibernation mode	<ul style="list-style-type: none">● If a USB device is connected to the computer (note: only for some USB devices), remove the USB device temporarily. If the problem persists, restart the computer.● It may take one or two minutes to enter standby or hibernation mode.● DVD-ROM & CD-R/RW driveThe computer may not enter standby mode properly and seems to be frozen in the case that the computer is communicating via the modem. If this happens, slide the power switch for four seconds or more to forcibly turn your computer off.
Unable to automatically enter standby or hibernation mode	<ul style="list-style-type: none">● If a peripheral is connected to the computer, disconnect the device.● When the internal LCD is closed, the computer may not enter standby or hibernation mode. In order to activate standby or hibernation automatically while using the computer with the internal LCD closed, set [Touch Pad] to [Disable] in [Main] menu of the Setup Utility.
The computer does not resume	<ul style="list-style-type: none">● Did you disconnect the AC adaptor or the battery pack while the computer was in standby mode? If the computer's power supply is disconnected while the computer is in standby mode, all unsaved data will be lost.● Did you slide the power switch and hold it for four seconds or more? If you slide the power switch and hold it for four seconds or more, the power will be turned off forcibly. In this case, all unsaved data will be lost.



■ Battery Indicator

The red indicator lights	<ul style="list-style-type: none">● The battery level is very low (the charge is approx. 9% or less). Connect the AC adaptor. You can use the computer when the battery indicator light is orange. If you do not have an AC adaptor, save your data and power off your computer. After replacing the battery pack with a fully charged one, turn your computer on.
The red indicator blinks	<ul style="list-style-type: none">● Quickly save your data and power off your computer. Remove the battery pack and disconnect the AC adaptor, then connect them again. If the problem persists, contact your technical support office. Possible failure in the battery pack or charging circuit.
The orange indicator blinks	<ul style="list-style-type: none">● Battery cannot be recharged temporarily because the internal temperature of the battery pack is outside of the acceptable temperature range for recharging. Once the allowable range requirement is satisfied, charging begins automatically. Your computer can be used normally in this state.

■ Keyboard

Only numbers can be inputted	<ul style="list-style-type: none"> ● Check whether the indicator  is on. If it is on, the computer is in ten-key keyboard mode. To disable the ten-key mode, press NumLk.
Only capital letters are being input	<ul style="list-style-type: none"> ● Check whether the indicator  is on. If it is on, the computer is in Caps Lock mode. To disable the Caps Lock mode, press CapsLock.
How to input European characters (ß, à, ç etc.), symbols or Euro currency symbol is unclear	<ul style="list-style-type: none"> ● Display the character map and point to the desired font name, such as European fonts, and select it with the following procedure. Select [start] - [All Programs] - [Accessories] - [System Tools] - [Character Map].


■ Network

Unable to connect to a network	<ul style="list-style-type: none"> ● Confirm that either [Modem], [LAN] or [Wireless LAN] is set to [Enable] in the Setup Utility. ● When using the computer as a network computer, some additional settings may have to be made depending on the usage conditions. We recommend asking your system administrator or the person in charge of the network. ● If the standby or hibernation mode is entered, the computer may have to be restarted. ● If the link lamp on the HUB unit is not on and the network cannot be accessed, set the speed to match the HUB unit. (→ page 71) ● The wireless function at the access point may be disabled. Follow the instructions in the manual for the access point, and confirm the access point settings
Unable to use wireless LAN	<ul style="list-style-type: none"> ● Confirm that [Wireless LAN] is set to [Enable] in the Setup Utility. ● Confirm that  is displayed on the taskbar. If  is not displayed on the taskbar, confirm that [On] is selected for [Switch radio] in [Intel(R) PROSet] - [General]. (→ page 76) ● Confirm the setting of the IP address for the access point, following the operating instructions for that access point. ● Confirm whether the Intel(R) PROSet is installed using the following menu. [start] - [Control Panel] - [Add or Remove Programs]. If it has not been installed, input [c:\util\drivers\wlan\proset\setup.exe] in [start] - [Run] to install.

■ Network

<p>The following phenomena occur</p> <ul style="list-style-type: none">● The LAN transmission speed slows down dramatically● Wireless LAN connection drops out	<p>→ page 102</p>
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■ Connecting Peripherals

<p>An error occurs while installing the driver</p>	<ul style="list-style-type: none">● When you install the driver for a PC Card or peripheral device, be sure to use a driver that is compatible with the operating system. If you use an incompatible driver, malfunction may occur. For information on drivers, contact the manufacturer of the peripheral device you purchased.
<p>Your peripheral does not work</p>	<ul style="list-style-type: none">● Make sure a driver is installed.● Contact the manufacturer of the product.● When operation resumes from the standby or hibernation mode, devices such as a mouse, modem or PC Cards may not function properly. In such cases, you will need to restart your computer or reinitialize the individual devices.● When  is displayed in the Device Manager, try removing and inserting the device once more. If the problem persists, restart the computer.● Depending on the device connected, the computer may not recognize when the device is connected or disconnected, or the device may not operate properly. Use the following procedure. Select the applied device in [start] - [Control Panel] - [Performance and Maintenance] - [System] - [Hardware] - [Device Manager], then remove the check mark for [Allow the computer to turn off this device to save power] in [Power Management]. (This item may be unavailable for some types of devices.)
<p>The cursor does not move from mouse operations</p>	<ul style="list-style-type: none">● Check your mouse connection.● A driver which is compatible with the connected mouse must be installed.● If the device does not operate when the driver is installed: In the Setup Utility, set [Touch Pad] to [Disable].

■ Connecting Peripherals

<p>The device will not operate if a different mouse driver is installed</p>	<ul style="list-style-type: none"> ● When you install a different mouse driver, such as IntelliPoint for Microsoft's IntelliMouse, the mouse driver currently installed in the computer may need to be uninstalled. Use the following procedure to uninstall this driver. <ol style="list-style-type: none"> ① Display the screen to uninstall the program. Select [start] - [Control Panel] - [Add or Remove Programs]. ② Uninstall [Synaptics Pointing Device Driver] and [TouchPadUtility] separately.
<p>A PC Card does not work</p>	<ul style="list-style-type: none"> ● Make sure the card is properly inserted. ● Confirm that the card conforms to the PC Card Standard. ● Note that after a driver (PC Card driver on other) is installed, the computer must be restarted. ● Check that the proper port settings have been made. ● Read the operating instructions for the PC Card. Or, you may need to call the manufacturer of the PC Card. ● Try removing/reinserting the PC Card by following the proper procedure. (→ page 47) ● Confirm that a driver for your operating system has been installed. ● ZV card, SRAM card, FLASH ROM card (except for an ATA interface) and card requiring 12V are not supported.
<p>USB floppy disk drives do not work as a boot drive</p>	<ul style="list-style-type: none"> ● Only the Panasonic CF-VFDU03 USB floppy disk drive (optional) can be used. ● Make sure [Legacy USB Support] is enable in the Setup Utility. ● After powering off the computer, connect the USB floppy disk drive and restart the computer.
<p>You do not know the available RAM module</p>	<p>⇒ <i>Operating Instructions</i> "RAM Module"</p>
<p>Cannot tell whether the RAM module has been correctly installed</p>	<ul style="list-style-type: none"> ● You can check whether the RAM module is recognized using [Information] menu in the Setup Utility. If the RAM module is not recognized, turn the computer off and reinsert the RAM module.
<p>The RAM module has not been recognized</p>	<ul style="list-style-type: none"> ● Make sure the RAM module has been properly inserted. ● Use the RAM module that supports the recommended specifications (⇒ <i>Operating Instructions</i> "RAM Module").
<p>The address map for IRQ, I/O port address, etc. is unclear</p>	<ul style="list-style-type: none"> ● The current address map can be displayed with the following procedure. [start] - [Control Panel] - [Performance and Maintenance] - [System] - [Hardware] - [Device Manager] - [View] - [Resources by type].

■ Connecting Peripherals

<p>The following phenomena occur</p> <ul style="list-style-type: none">● The LAN transmission speed slows down dramatically● Wireless LAN connection drops out● Poor performance when forwarding data via a PC card (e.g., unstable video images when writing videos to a DV camera using an IEEE1394 PC card)	<ul style="list-style-type: none">● These phenomena may be consequences of performance losses that result from CPU power-saving functions. Execute the following operations after logging on with administrator authority.<ol style="list-style-type: none">① Input [c:\util\cpupower\setup.exe] in [start] - [Run], and select [OK]. Follow the on-screen instructions.② Select [Performance] in [start] - [Panasonic] - [CPU Idle Setting] and select [OK], then select [Yes].<p>The computer will be restarted automatically.</p><ul style="list-style-type: none">● If these phenomena occur even with the above settings, select [start] - [Control Panel] - [Performance and Maintenance] - [Power Options] - [Power Schemes], select [Always On] from [Power schemes], and select [OK].● These operations will be helpful in easing the performance losses resulting from CPU power saving functions, but will not be effective against the phenomena resulting from other causes. (e.g., noise generated during periods of exceptionally high load on the CPU, such as during video playback).● When these operations are performed, the battery running time will be reduced to some extent. We thus recommend that when these phenomena do not occur, you should select [Battery (Windows XP Standard)] in [CPU Idle Setting], and return [Power schemes] in [Power Options] to [Portable/Laptop].
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




■ Disk Operations

<p>Cannot read/write to a floppy disk</p>	<ul style="list-style-type: none">● Are you using the Panasonic CF-VF03 USB floppy disk drive (optional)?● Has the floppy disk been correctly inserted?● Has the floppy disk been correctly formatted?● Your floppy disk content may be corrupted.
<p>Unable to write to a disk</p>	<ul style="list-style-type: none">● Is the floppy disk write-protected?
<p>How to format a floppy disk is unclear</p>	<ul style="list-style-type: none">● Format the floppy disk using the following procedure.<p>Select [My Computer] in [start] and select [3 1/2 Floppy (A:)], then select [File] from the menu and select [Format]. Confirm the disc capacity and the format type, then select [Start] to begin the formatting.</p>

■ Disk Operations

Unable to read/write to the hard disk	<ul style="list-style-type: none"> ● Your drive or file may not have been properly set. ● Check to see if the hard disk is full. If it is full, delete unnecessary files. ● Your hard disk content may be corrupted. Contact your technical support office.
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■ Touch Pad

The cursor cannot be controlled properly	<ul style="list-style-type: none"> ● If you are using an external mouse, ensure that the external mouse has been connected correctly. ● Restart the computer by using the keyboard. (Press , U, and select [Restart] with    , then press Enter.) ● If the computer does not respond to keyboard commands, read "No response" (→ page 104).
Unable to input using the touch pad	<ul style="list-style-type: none"> ● Has the Setup Utility been used to set [Touch Pad] to [Enable]? ● When external mouse drivers are installed (e.g., IntelliMouse), the touch pad may not be used. ● Has the touch pad driver been properly installed?

■ Touchscreen

Unable to point correctly with the stylus included with the computer	<ul style="list-style-type: none"> ● As a result of the physical characteristics of the touchscreen, sometimes the position of the stylus does not match the position of the cursor on the screen. This is not a malfunction. Perform [Calibration]. (→ page 21)
Unable to input by touching the display	<ul style="list-style-type: none"> ● When mouse drivers are installed (i.e. IntelliMouse), the touchscreen is unable to be used. Has the touchscreen driver been properly installed? ● Has the touchscreen driver been properly installed?

■ Sound

The sound is not heard	<ul style="list-style-type: none"> ● Try changing the mute by pressing Fn+F4 or Fn+F6.
Volume does not change when Fn+F5 or Fn+F6 is pressed	<ul style="list-style-type: none"> ● If the Windows sound function is not active, the volume will not change even if  is displayed.
The audio is distorted	<ul style="list-style-type: none"> ● Audio distortion may occur when operations are performed by pressing Fn in combination with another key. Stop playing and start again.

■ SD Card Setup (SD memory card security function)

Cannot use SD memory card security function	<ul style="list-style-type: none">● The SD memory card must be set up in order to use the security function (→ page 55).
Cannot log on with the SD memory card	<ul style="list-style-type: none">● Windows logon user name and password are not set in the SD memory card correctly. Enter the Windows user name and password without using the SD memory card. After logging on, set the same user name and the password on the SD memory card and Windows, using one of the following operations.<ul style="list-style-type: none">• Change the setting of the SD memory card side by [SD Card Setup].• Change the setting of the Windows side by [Control Panel].

■ Fast User Switching Function

Some applications may not work properly	<ul style="list-style-type: none">● When switching to a different user with the Fast User Switching function, the following problems may occur.<ul style="list-style-type: none">• Some applications may not work properly.• Key combination with Fn may not work.• It may not be possible to set the settings of the display.• The wireless LAN cannot be used.In this case, log off all users without using Fast User Switching function, and try the operation once more. If the problem persists, restart the computer.
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■ Others

No response	<ul style="list-style-type: none">● Press Ctrl+Shift+Esc to open Task Manager and close the software application which is not responding.● Is there an input screen (e.g., password input screen at startup) hidden behind another window? Use Alt+Tab to check for other windows being displayed.● After shutting down by sliding the power switch for more than four seconds, slide the power switch to power on and open the application again. If the program no longer works normally, delete the program using the following menu. Then reinstall the program. [start] - [Control Panel] - [Add or Remove Programs]
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■ Others

When trying to play back video files using Windows® Media Player, the message [Codec required] appears, and the file cannot be played back	<ul style="list-style-type: none">● Some video files use a Codec that is not installed as a standard. In these cases, if you play back the video file after connecting to the Internet, the Codec may be downloaded automatically, allowing you to play back the file.
The shortcut icon for the Windows® Media Player is not displayed on the desktop	<ul style="list-style-type: none">● Start up Windows® Media Player from [start] - [All Programs]. Also, you can copy the icon from [All Programs] list to the desktop and use this icon to start Windows® Media Player.
Two shortcut icons for the Windows® Media Player are displayed on the desktop	<ul style="list-style-type: none">● Did the user who first accepted the Windows® Media Player license agreement have the administrator authority? Two icons will be displayed until someone with the administrator authority accepts the license agreement, but either icon can be used to start the program.
Cannot operate Fn keys	<ul style="list-style-type: none">● In [Main] menu of the Setup Utility, is [Fn / Ctrl Key] set to [Replace]? Return the setting to [Normal], or press Ctrl instead of Fn if you want to leave the setting in the [Replace].

Check the Computer's Usage Status

You can use the PC Information Viewer to check the computer's usage status, and use this information when calling your technical support office for advice. (If you have not logged on with the administrator authority, some information will be displayed as [Not Found].)

■ Running PC Information Viewer

- ① Select [start] - [All Programs] - [Panasonic] - [PC Information Viewer] - [PC Information Viewer].

Click on the items to display detailed information for each item.

- The [PC Information Viewer] screen is always displayed on the top of every other screen.

■ Save information to a file

Displayed information can be saved to a text file(.txt).

- ① Run the PC Information Viewer and display the information you wish to save.
- ② Select [Save].
 - To save the item that is displayed.
Select [Save only the information displayed] and select [OK].
Some of the hidden information on the screen, which cannot be shown without scrolling the screen, will be saved, too.
 - To save all items.
Select [Save all the information] and select [OK].
- ③ Select the folder, input the file name, then select [Save].

■ Save a copy of the screen to a file

You can save a copy of the screen currently being displayed to a file in bitmap format (.bmp).

- ① Display the screen you want to save.
- ② Press **Ctrl+Alt+F8**.
- ③ When a message "The copy of the screen was saved..." is displayed, select [OK].

[pcinfo.bmp] file will be saved in [My Documents] folder. If [pcinfo.bmp] file already exists, it will be overwritten. (If [pcinfo.bmp] file is set as a "Read-only" or "Hidden" file, the new file cannot be saved.)

NOTE

- You can also save a copy of the screen to a file using the following procedure.
Select [start] - [All Programs] - [Panasonic] - [PC Information Viewer] - [Screen Copy].
 - At the time of purchase, the computer is set so that a copy of the screen can be saved to a file by pressing **Ctrl+Alt+F8**. This setting can be changed using the following procedure.
 - ① Select [PC Information Viewer].
Select [start] - [All Programs] - [Panasonic] - [PC Information Viewer].
 - ② Select [Screen Copy] with the right button, and select [Properties] - [Shortcut].
 - ③ Move the cursor to [Shortcut key], and press the key to be used for the shortcut.
 - Colors are saved in 256 colors.
 - When using an Extended Desktop
A copy of the screen displayed on the primary device will be saved.
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